

No. 77—

Supreme Court, U. S.
FILED

OCT 6 1977

MICHAEL RODAR, JR., CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1977

77-521

GENERAL MOTORS CORPORATION, PETITIONER,

v.

UNITED STATES OF AMERICA, *et al.*

**PETITION FOR A WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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General Motors Corporation ("GM") petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the District of Columbia Circuit in this case.

OPINIONS BELOW

The opinion of the court of appeals (App. A) has not yet been reported. The opinion of the district court denying cross-motions for summary judgment (App. D) is reported at 65 F. R. D. 115. The district court's post-trial memorandum of findings and conclusions (App. E) is not reported.

JURISDICTION

The judgment of the court of appeals in these consolidated cases (App. B) was entered on June 28, 1977.¹ A timely petition for rehearing with suggestion for rehearing *en banc* was denied on August 18, 1977 (App. C). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1) (1970).

QUESTION PRESENTED

Whether in applying the key definitional provision of the National Traffic and Motor Vehicle Safety Act requiring that a manufacturer recall automobiles containing a defect which poses an "unreasonable risk" of accidents, injury and death, the court of appeals disregarded the intent of Congress by adopting a *per se* rule which precludes introduction of evidence on the existence and degree of risk.

STATUTORY PROVISIONS INVOLVED

Section 102(1) of the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. § 1391(1) (1970),² provides:

"Motor vehicle safety" means the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against unreasonable risk of accidents occurring as a result of the design, construction or performance of motor

¹This petition seeks review of the judgment entered in two separate cases which were consolidated for trial and on appeal. See p. 8 n.5 *infra*.

²The Act was amended in 1974 in respects not material to this litigation. See p. 6 n.4 *infra*.

vehicles and is also protected against unreasonable risk of death or injury to persons in the event accidents do occur, and includes nonoperational safety of such vehicles.

Section 102(11) of that Act, 15 U.S.C. § 1391(11) (1970), provides:

"Defect" includes any defect in performance, construction, components, or materials in motor vehicles or motor vehicle equipment.

Section 113(e) of that Act, 15 U.S.C. § 1402(e) (1970) (amended 1974), provides:

(e) If through testing, inspection, investigation, or research carried out pursuant to this subchapter, or examination of reports pursuant to subsection (d) of this section, or otherwise, the Secretary determines that any motor vehicle or item of motor vehicle equipment—

(1) does not comply with an applicable Federal motor vehicle safety standard prescribed pursuant to section 1392 of this title; or

(2) contain a defect which relates to motor vehicle safety;

then he shall immediately notify the manufacturer of such motor vehicle or item of motor vehicle equipment of such defect or failure to comply. The notice shall contain the findings of the Secretary and shall include all information upon which the findings are based. The Secretary shall afford such manufacturer an opportunity to present his views and evidence in support thereof, to establish that there is no failure

of compliance or that the alleged defect does not affect motor vehicle safety. If after such presentation by the manufacturer the Secretary determines that such vehicle or item of equipment does not comply with applicable Federal motor vehicle safety standards, or contains a defect which relates to motor vehicle safety, the Secretary shall direct the manufacturer to furnish the notification specified in subsection (c) of this section to the purchaser of such motor vehicle or item of motor vehicle equipment as provided in subsections (a) and (b) of this section.

STATEMENT

This case of first impression presents a question of great significance concerning the proper construction of the critical statutory term "unreasonable risk" which defines the scope of the motor vehicle recall provisions of the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. § 1381 *et seq.* (1970) (amended 1974) ("the Act" or "the Safety Act"). Two judges in the District of Columbia Circuit—the trial court and the dissenting judge in the court of appeals—agreed that application of that term raised "a matter of fact, not of supposition" (App. D, p. 45a), but two others—the majority of the court of appeals' panel—instead resorted to a *per se* rule. The court of appeals' brief, cryptic *per curiam* opinion thus creates considerable uncertainty as to whether the existence of an "unreasonable risk" in Safety Act cases is a factual matter susceptible of trial, or a question to be resolved by judicial hunch and supposition without admission of evidence. Resolution of this recurring issue is of vital importance to the automotive industry, which is the largest manufacturing sector of the economy, and, of course, to the public safety.

The Statutory Scheme

The Act empowers the Administrator of the National Highway and Traffic Safety Administration ("NHTSA"), as the delegate of the Secretary of Transportation (49 C.F.R. § 1.51(a) (1977)), to direct the manufacturer of a motor vehicle to notify all purchasers of that vehicle model if, after an informal and expedited inquiry, the Administrator determines that the model "contains a defect which relates to motor vehicle safety." 15 U.S.C. § 1402(e) (1970) (amended 1974). The Administrator's investigation of any vehicle model he suspects may be hazardous is *ex parte*. If he initially determines that a vehicle contains a "defect" which "relates to motor vehicle safety," the Act requires that he notify the manufacturer of his findings and furnish all information on which his determination is based. The manufacturer then is afforded an opportunity to persuade the Administrator at an informal public meeting that the defect does not exist or is not safety-related, but the manufacturer is not afforded the rights of confrontation, cross-examination or other adjudicative due process rights at that meeting. If the Administrator adheres to his initial findings, he may direct the manufacturer to give notification of the defect to purchasers of the vehicle.

If the manufacturer fails to comply with the Administrator's directive, the United States may bring an enforcement action in federal district court seeking compliance with the order and a substantial civil penalty. Sections 109 and 110, 15 U.S.C. §§ 1398(a), 1399(a) (1970) (amended 1974). The enforcement proceeding involves a trial *de novo* of the factual questions surrounding the presence or absence of a safety-related defect. The government bears the burden of establishing at trial that the

alleged safety-related defect does in fact exist.³ If the government prevails at trial, the manufacturer is required to notify the purchasers and is liable to assessment of the statutory penalty.⁴

³In order "to expedite the disposition of safety-related defect and noncompliance matters without violating the constitutional rights of due process," Congress provided informal procedures at the defect notification stage with the understanding that due process would be satisfied by providing for "a trial *de novo* with the burden of proof on the Government to prove, by a preponderance of the evidence, that a safety-related defect . . . exists" before the manufacturer could be held liable. H.R. Rep. No. 93-1191, 93d Cong., 2d Sess. 17 (1974); see *Ford Motor Co. v. Coleman*, 402 F. Supp. 475, 480 n.12 (D.D.C. 1975), *aff'd*, 425 U.S. 927 (1976); *United States v. General Motors Corp.*, 518 F.2d 420, 426 (D.C. Cir. 1975) ("*Wheels*").

Congress adopted this approach in lieu of the procedure suggested by petitioner, and initially approved by the Senate in considering the 1974 Amendments, that a recall notification issue only after a formal administrative hearing based on the record, with cross-examination of witnesses on adjudicative facts, and with judicial review by the Court of Appeals for the District of Columbia Circuit on a substantial evidence basis. See H.R. Rep. No. 93-1452, 93d Cong., 2d Sess. 29, 32 (1974); H.R. Rep. No. 93-1191, *supra*, at 17; cf. *Hearing Before the Senate Comm. on Commerce*, 93d Cong., 1st Sess. 92 (1973).

⁴The Administrator issued the instant directive in January 1974 pursuant to Section 113(e) of the Act. 15 U.S.C. § 1402(e) (1970) (amended 1974). The Act subsequently was amended on October 27, 1974. Pub. L. 93-492, 88 Stat. 1470. The major effects of the Amendments were: (1) to expand the remedy provision to require that the manufacturer not only notify, but also correct safety related defects without charge to the owners; (2) to require the manufacturer, should the Administrator so order, to send out provisional notice of the defect while the enforcement action is being litigated; and (3) to increase the maximum civil penalty from \$400,000 to \$800,000. Section 113 was repealed and replaced by essentially identical notification provisions (15 U.S.C. §§ 1411-1415 (Supp. V 1975)).

The 1974 Amendments do not apply to any notification required to be issued before their effective date, Pub. L. 93-492, Section 102(c), 88 Stat. 1477, and thus do not affect this litigation. While the Amendments changed the remedies associated with a safety related defect, they did not change the essential statutory provision that notification is required only of a "defect which relates to motor vehicle safety." Nor did they modify the definitions of "defect" and

The Act both grants authority for the issuance of recall directives and limits that authority. Thus, Section 113(e) (2), 15 U.S.C. § 1402(e) (2) (1970) (amended 1974), empowers NHTSA to issue notification directives, but only with respect to vehicles that contain "a defect which relates to motor vehicle safety." "Motor vehicle safety" is a defined term, and its definition expressly delimits the scope of the entire statute. S. Rep. No. 1301, 89th Cong., 2d Sess. 5 (1966); see *United States v. General Motors Corp.*, 518 F.2d 420, 435 (D.C. Cir. 1975) ("*Wheels*"). Section 102(1), 15 U.S.C. § 1391(1), provides that

"Motor vehicle safety" means the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against *unreasonable risk of accidents* occurring as a result of the design, construction or performance of motor vehicles and is also protected against *unreasonable risk of death or injury to persons* in the event accidents do occur, and includes nonoperational safety of such vehicles. (Emphasis added.)

Thus, the Act does not require notification of every defect, but only of those which present "unreasonable risk" of accidents, injury or death.

The Proceedings Below

In 1972, NHTSA initiated an investigation of alleged failures of pitman arms in 1959-1960 model year Cadillac

"motor vehicle safety" which are at issue in this case. See *United States v. General Motors Corp.*, *supra*, 518 F.2d at 436 & n.72. The court of appeals' decision on the standard of safety-relatedness therefore has full prospective application (App. A, p. 6a n.7). Accordingly, the 1974 Amendments of the statute provide no basis for denying certiorari in this case.

automobiles manufactured by petitioner. The pitman arm is an essential element of the automobile steering system. It transfers the angular motion of the steering wheel and shaft to the lateral movement of the steering linkage which turns the front wheels. If it fails, the vehicle cannot be steered.

On the basis of its investigation, NHTSA in September 1973 advised petitioner of its initial determination that these 1959 and 1960 Cadillacs contained a safety-related defect. The advice was contained in a letter which did not specify the defect but which furnished GM with a copy of the investigative report. On November 6, 1973, NHTSA conducted an informal meeting at which petitioner disputed the validity of the contents and conclusions of NHTSA's investigative report and argued that the pitman arm did not present an unreasonable risk of injury or accidents.

By letter dated January 10, 1974, the Administrator notified petitioner of his final determination that the pitman arm problem constituted a safety related defect and directed petitioner to furnish the notice specified by the statute to the purchasers of these automobiles (App. A, pp. 5a-6a; App. D, p. 40a). Petitioner disagreed with that determination and promptly sought judicial review of the recall directive.⁵

On February 13, 1974, the United States filed suit in the United States District Court for the District of Columbia seeking to enforce NHTSA's order under Section 110(a) of the Act, 15 U.S.C. § 1399(a) (1970) (amended 1974), and to collect the maximum civil penalty provided under Section 108(a), 15 U.S.C. 1397(a) (1970)

⁵Petitioner filed suit in the United States District Court for the Eastern District of Michigan seeking a declaration that NHTSA's determination was unlawful and an injunction against enforcement of its order. That action subsequently was transferred to the District of Columbia and consolidated with the government's enforcement action (App. D, p. 40a; App. E, p. 52a & n.10).

(amended 1974). Both parties moved for summary judgment. Following the standards adopted in *Wheels, supra*, the court granted the government's motion for summary judgment on the issue of the existence of a "defect" within the meaning of Section 102(11), 15 U.S.C. § 1391(11) (App. D, pp. 40a-42a; App. E, p. 49a).⁶

On the issue of whether the pitman arm defect was "safety-related" within the meaning of Section 102(1), the district court found that there was a disputed issue of material fact which required denial of both motions for summary judgment. Relying solely on the administrative record, which had not been tested in an adversary "due process" hearing before the agency, the government had contended that pitman arm failure could occur at high speed and constituted an unreasonable risk at any speed. Petitioner had countered with evidence and affidavits showing that pitman arm failure could occur only when the wheels were turned to or nearly to their extreme limits, a condition reached only in parking or turning at very slow speeds, when loss of directional control can be checked by braking, or when the automobile is standing virtually still (App. D, p. 43a). GM also argued that the operational history of these 15-year-old Cadillacs—some 24 billion miles of travel with "no documented injury or death resulting from pitman arm failure, as NHTSA has admitted"—demonstrated the absence of unreasonable risk (App. E, p. 56a; see App. D, p. 43a).

The district court observed that "[t]here is a certain appeal to the government's argument that a defect which may result in a loss of steering control is, *ipso facto*, a safety-related defect under the Act" (App. D, p. 45a).

⁶Petitioner did not challenge this ruling on appeal (App. A, p. 8a). Therefore, this issue is not presented to the Court for review.

However, the court found that the statute required rejection of any such *a priori* postulation:

The Act is more limited, however. Under its standard, a safety-related defect must pose, not just a risk of accidents, death or injury, but an *unreasonable* risk. The inclusion of the adjective "unreasonable," as well as the legislative history make the question of whether fatigue induced failure of the pitman arm creates such an unreasonable risk a matter of fact, not of supposition (App. D, p. 45a) (footnote omitted).

Faced with conflicting factual submissions on the existence and degree of risk to the public, the court held that the reasonableness question could be resolved only by a *de novo* trial and denied the cross-motions for summary judgment (*id.*, pp. 45a-46a).

In the ensuing non-jury trial, the government attempted to prove through the testimony of an expert metallurgical witness that pitman arm failure could occur at high speed. It also introduced testimony purporting to describe a pitman arm failure which had occurred in circumstances other than in parking maneuvers or in a low-speed U-turn (App. E, pp. 55a-56a & n.14). In response, petitioner adduced expert metallurgical and engineering testimony to show that pitman arm failure could occur only during low-speed maneuvers or while the vehicle is stationary. Petitioner also introduced a risk analysis to quantify the projected future safety record of the Cadillacs, which, at that time, had completed approximately 96% of their useful lives. On the basis of past experience of billions of miles traveled, and on the basis of the engineering and metallurgical evidence concerning the nature of pitman arm failure, GM's expert calculated that there was "a negligible risk of accidents, injuries or death due to pitman arm failure in the

extremely limited future that remain[ed] for those automobiles" (App. E, p. 57a).

After consideration of all the evidence, the court found that the government's evidence of one pitman arm failure in conditions other than parking or very slow turns did not prove that such failures "would happen sufficiently often to create an unreasonable risk to safety" (*id.*, p. 57a). It therefore held that the government had failed to demonstrate that the pitman arm defect was safety-related and set aside the defect notification order (*id.*, pp. 57a-58a).

The court of appeals, with one judge dissenting, reversed. In a one paragraph *per curiam* opinion, the majority held that the district court should have granted summary judgment for the government, without receiving evidence beyond the untested administrative record, on the issue of whether the pitman arm defect "related to motor vehicle safety" (App. A, p. 2a). The majority considered only that the case involved a steering defect. It held that three facts—that six times as many replacement parts had been sold for these Cadillacs as for vehicles of adjacent model years; that pitman arm failures had occurred while these Cadillacs were being driven; and that their failure led to loss of directional control of the car—were sufficient without more to demonstrate conclusively an "unreasonable risk of accidents" as required by Section 102(1) (*id.*, p. 2a). The majority did not address any of the evidence received at trial. It simply announced a *per se* rule, reversed the judgment of the district court, and remanded for determination of the appropriate civil penalty (*id.*).

Judge Leventhal wrote a lengthy dissenting opinion out of concern for the precedential effect of "the doctrine we establish for governance of this type of case in the future

. . ." (App. A, p. 34a).⁷ While recognizing that proof of a defect in steering might make out a *prima facie* case that such a defect was safety-related, Judge Leventhal rejected the majority's *per se* rule that any defect in the steering system *ipso facto* presented an "unreasonable risk" of accidents. Under his analysis, the critical flaw in the majority's reasoning was the

[elevation of] facts which give rise to a strong suspicion of dangerousness into a conclusive presumption of the existence of a safety-related defect (*id.*, p. 34a).

Judge Leventhal found that by the inclusion of the term "unreasonable risk" in Section 102(1), Congress intended to require a factual balancing of the safety benefits to be obtained from, and the costs of compliance with, each particular recall order. He found that this provision required that the manufacturer be permitted "the opportunity to dispel . . . justified apprehension by proof that failure due to the defect does not occur in a dangerous fashion and that the risk arising from the defect is therefore inconsequential" (App. A, p. 34a). He concluded that "GM should have the opportunity to show that the failures occur in circumstances in which loss of steering is not dangerous" through proof of "a valid prediction of negligible future risk from operation of the cars based on a significant data base" accumulated during a substantial period of automobile operation (App. A, pp. 15a, 17a).⁸

⁷Judge Leventhal enjoys a special familiarity with the statutory scheme by virtue of having authored the two major opinions which have interpreted the Act, *Ford Motor Co. v. Coleman*, which was summarily affirmed by this Court, 425 U.S. 927 (1976), and *Wheels, supra*.

⁸Judge Leventhal styled his decision a partial dissent because he also disagreed with the district court's allocation of the burden

REASONS FOR GRANTING THE WRIT

In a decision of first impression, the court of appeals has departed fundamentally from the principles Congress intended to be utilized to determine whether a vehicle model should be recalled. And, by adopting a *per se* rule that precludes a manufacturer from introducing evidence bearing on the presence or absence of an "unreasonable risk," the court below has frustrated the manufacturer's ability meaningfully to exercise its right to challenge the informal administrative determination of a "safety related" defect. The result is not merely error in this case, but also considerable uncertainty about the scope of the substantive obligations of automobile manufacturers to recall and repair defective motor vehicles under the National Traffic and Motor Vehicle Safety Act. Clarification of the scope of the Act is a matter of obvious significance, both to the public and to the automotive industry.

Furthermore, the decision below is of especial significance in the administration of this important federal statute because enforcement litigation under the Act is concentrated in the District of Columbia Circuit. This is an archetypical instance in which certiorari should be granted because the court of appeals has erroneously decided an important question of federal law which has not been, but should be, decided by this Court.

1. Section 102(1) of the Safety Act empowers NHTSA to issue recall directives, not for all vehicle defects, but only for those defects which pose an "unreasonable risk" of accidents, injury or death. The legislative history of the Act demonstrates that Congress deliberately placed this

of proof once the government had established a *prima facie* case (*id.*, pp. 21a-23a, 32a). He therefore would have reversed and remanded the case for retrial under what he deemed the proper standard of proof.

restriction on its scope in the recognition that imposition of any more stringent standard on manufacturers would require such enormous outlays for design, manufacture and testing as to price the automobile outside the means of the average consumer (*see* App. A, p. 14a). Selection of the "unreasonable risk" standard also reflects Congress' intention that recall orders would be issued only if found warranted after a balancing of safety considerations and the costs of compliance involved in each particular fact situation. *Wheels, supra*, 518 F.2d at 435; App. A, p. 12a; *see* S. Rep. No. 1301, *supra*, at 6; *Traffic Safety: Hearings on S. 3005 before the Senate Comm. on Commerce*, 89th Cong., 2d Sess. 56, 411 (1966).⁹ Inherent in this balancing process is consideration of the various relevant factors, including the remaining useful life of the vehicle model and the expected severity of any accidents which might be caused by an unremedied defect, discounted by the improbability of their occurrence. *Cf. United States v. Carroll Towing Co.*, 159 F.2d 169 (2d Cir. 1947) (L. Hand, J.).

As the dissent below noted, however, the majority of the court of appeals in this case has read the reasonableness standard and the balancing test completely out of the statute. Rather, by adopting a *per se* approach, the majority ruled that evidence of the existence and degree of risk involved with this vehicle model never should have been received at all, let alone subjected to a balancing process.

The obligation of the district court in Safety Act cases is to conduct a *de novo* trial of the reasonableness question, taking into account the various considerations noted above. Here the district court conscientiously carried out that

⁹"Assessment of risk is a normal part of judicial and administrative fact-finding" and "must depend upon the facts of each case." *Ethyl Corp. v. Environmental Protection Agency*, 541 F.2d 1, 18 & n.32, 28 n.52 (D.C. Cir.) (*en banc*), cert. denied, 426 U.S. 941 (1976).

duty, but the court of appeals nullified the trial court's effort by substituting its own notion of a *per se* rule for the trial court's careful and reasoned findings and conclusions. The appellate court's *per se* rule is illogical and unsupportable under this court's guidelines for the adoption of irrebuttable presumptions.¹⁰ Its decision also manifestly contravenes the explicit intention of Congress in adopting the Safety Act, which was to protect, not against all risks, but only against "unreasonable" risks.

2. The fact that this is a case of first impression should in no way inhibit the Court from granting certiorari. Indeed, for at least two reasons, this case is unusually worthy of review precisely because it is a case of first impression. First, because enforcement litigation under the Act is concentrated in the District of Columbia Circuit, *see* pp. 18-19, *infra*, the decision below will be followed to some degree in all subsequent Safety Act litigation. The majority's determination to announce only an unexplained result, instead of articulating meaningful standards to guide the district courts in other cases, is particularly unfortunate, and will confuse and inject error into the future administration of the Act unless the errors below are corrected. Second, this

¹⁰The majority's implicit adoption of a *per se* rule that all disabling steering defects amount to unreasonable risks under the Act was improper for reasons wholly apart from the incompatibility of such a rule with the legislative intent behind the "unreasonable risk" test. This was the very first case to reach trial on the issue of the presence or absence of an unreasonable risk on specific facts. *Per se* rules, which permit a proposition to be established without evidentiary proof, can be justified only on the basis of extensive "experience and analysis." *White Motor Co. v. United States*, 372 U.S. 253, 265 (1963) (Brennan, J., concurring). Only rarely will practical experience be sufficient to permit conclusions about reasonableness to be drawn without evidence and trial. Indeed, rules or statutes based on irrebuttable assumptions, which operate precisely like *per se* rules, can raise significant constitutional problems. *See, e.g., Cleveland Board of Education v. Laflour*, 414 U.S. 632 (1974); *Stanley v. Illinois*, 405 U.S. 645 (1972).

case presents a complete factual record upon which an appellate court can review the balancing of competing considerations required by the Act. If the majority's *per se* approach is permitted to stand and is extended to other components of the automobile, as the government has already suggested in another pending Safety Act case,¹¹ the appellate record in subsequent cases will not be developed beyond what is accumulated in the informal agency proceeding. Accordingly, this is likely to be the case with the most developed record upon which to consider the meaning of "unreasonable risk."

3. The majority's holding that the government should have been granted summary judgment on the basis of material gathered in NHTSA's administrative investigation also raises significant due process problems. Section 109 of the Act, 15 U.S.C. § 1398, exposes a manufacturer to a civil penalty of up to \$800,000 if it disagrees with NHTSA's recall order and forces the government to seek its enforcement in district court. Section 155(c)(1), 15 U.S.C. § 1415(c)(1) (Supp. V 1975), also provides that a manufacturer may obtain a preliminary injunction against enforcement of that order, and thereby stay the accrual of the civil penalty, upon proof that its failure to notify owners was reasonable and that it is likely to prevail on the merits at trial. In *Ford Motor Co. v. Coleman*, *supra*, the three-judge district court determined that the civil penalty provisions were constitutional, but only because a manufacturer with a substantial, nonfrivolous challenge to the Administrator's order could obtain a preliminary injunction which would toll the assessment of the penalty while it litigated the validity of the order in the district court.

¹¹See Memorandum in Support of the Motion of the Federal Appellees for Summary Affirmance in *United States v. General Motors Corp.*, C.A. D.C., Nos. 76-1744 and 76-1745, on appeal from the decision in *United States v. General Motors Corp.*, 417 F. Supp. 933 (D.D.C. 1976) (the *Quadrajet* case).

The decision below will exacerbate the burdens, identified in *Coleman*, that the statute imposes on the manufacturer at the preliminary injunction stage. The majority's *per se* rule will be read back into the requirement that the manufacturer demonstrate a likelihood that he will prevail on the merits. Thus, in entire categories of cases in which the manufacturer believes in good faith that the recall order is not justified because of the absence of documented past or predicted future accidents, he will be unable to toll the imposition of penalties unless he can prove at the preliminary stage, not only that the evidence is at least in equipoise, 402 F. Supp. at 487, but also that the allegedly defective component is not subject to an existing *per se* rule and that a new irrebuttable presumption should not be extended to that component.

The ruling below thus greatly increases the threshold showing required of the manufacturer, especially in light of the majority's failure to articulate meaningful standards as to when such *per se* rules are appropriate. It vitiates the adequacy of the protection otherwise afforded by Section 155(c) by denying the manufacturer an effective opportunity to litigate, without exposure to substantial civil penalties, the validity of an *ex parte* administrative order it believes in good faith to be erroneous.¹² It is precisely this type of barrier to litigation that the Due Process Clause prohibits. See, e.g., *St. Regis Paper Co. v. United States*, 368 U.S. 208 (1961), *aff'g*, 285 F.2d 607 (2d Cir. 1960); *St. Louis, Iron Mountain & Southern Ry. v. Williams*, 251 U.S. 63, 64-65 (1919); *Wadley Southern Ry. v. Georgia*, 235 U.S. 651 (1915).

¹²It is the government's policy to seek assessment of the maximum penalty in every enforcement action. *Amendments to the National Highway Traffic Safety Act of 1966: Hearings on H.R. 7505, H.R. 5529, H.R. 4187, and S. 355 before the Subcomm. on Commerce and Finance of the House Comm. on Interstate and Foreign Commerce (Part 1)*, 93d Cong., 1st Sess. 388 (1973).

Rather than casting the constitutionality of a portion of the Act in doubt by permitting the decision below to stand, the Court should grant certiorari to review the purported statutory basis for that decision.

4. The issue presented by this petition is fully ripe for decision by this Court. Not only does the case come to this Court on a fully developed trial record, as discussed above, but, for reasons we shall now briefly set forth, a conflict among the courts of appeals is highly unlikely to arise in the future.

Section 155(a) of the current Act, 15 U.S.C. § 1415(a) (Supp. V 1975), provides that a government enforcement action or any other action with respect to a NHTSA notification and remedy order may be brought only in the United States District Court for the District of Columbia or for a judicial district in the state of incorporation of the manufacturer. To date, the government has followed a *de facto* policy of filing all its enforcement actions against auto manufacturers in the District of Columbia.¹³ Moreover, even when manufacturers have attempted to litigate the validity of a notification order in another district, by bringing an injunctive action before the government filed its enforcement suit, those actions have either been dismissed or transferred to the District of Columbia once the government action has been filed.¹⁴

¹³For example, all the outstanding enforcement actions listed in NHTSA's Annual Report for 1976 were pending in the United States District Court for the District of Columbia. Department of Transportation, NHTSA, *Traffic Safety '76*, at F-3 to F-4 (1977).

¹⁴See, e.g., *General Motors Corp. v. Volpe*, 457 F.2d 922 (3d Cir. 1972), *aff'd* 321 F. Supp. 1112 (D. Del. 1970), dismissing the manufacturer's pre-enforcement review action on the ground that the government's enforcement action in the District of Columbia provided an adequate opportunity for review of all claims under the Act. Indeed, in the instant case, petitioner's pre-enforcement action was transferred to the District of Columbia and consolidated with the government's subsequent enforcement action. See p. 8 & n.5, *supra*.

Section 155(a) now requires the consolidation of "all actions (including enforcement actions)" brought with respect to a single notification order in accordance with the order of the court in which the first such action is brought. The lower courts have adopted the position that all such cases should be consolidated in the district court in which the government filed its timely enforcement suit, regardless of the order in which the suits were filed. See *Ford Motor Co. v. Coleman*, *supra*, 402 F. Supp. at 486 & n.30.¹

Under other circumstances, the interest of economy in the exercise of the Court's discretionary jurisdiction might suggest that the grant of certiorari be withheld until a conflict in statutory interpretation actually developed. Because of the high probability that all future litigation under the Act will be concentrated in the District of Columbia Circuit, however, the absence of an outstanding conflict among the courts of appeals should not persuade the Court to delay consideration of this pressing issue. See, e.g., *Schriber-Schroth Co. v. Cleveland Trust Co.*, 305 U.S. 47, 50 (1938).

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the petition for a writ of certiorari should be granted.

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October 6, 1977

Appendices

APPENDIX A

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 75-1751

UNITED STATES OF AMERICA, APPELLANT

v.

GENERAL MOTORS CORPORATION, a Corporation

No. 75-1752

GENERAL MOTORS CORPORATION, a Delaware Corporation

v.

BROCK ADAMS *et al.*, APPELLANTS

Appeals from the United States District Court
for the District of Columbia

(D.C. Civil Actions Nos. 74-277 & 74-1053)

Argued September 23, 1976

Decided June 28, 1977

Neil H. Koslowe, Attorney, Department of Justice, with whom Rex E. Lee, Assistant Attorney General, Earl J. Silbert, United States Attorney, and William Kanter, Attorney, Department of Justice, were on the brief, for appellants. Morton Hollander, Attorney, Department of Justice, also entered an appearance for appellants.

James Robertson, with whom Michael L. Burack, Cornelius J. Golden, Jr., and Frazer F. Hilder were on the brief, for appellee.

Before WRIGHT, LEVENTHAL, and ROBB, Circuit Judges.

Opinion for the court *per curiam*.

Opinion dissenting in part filed by Circuit Judge LEVENTHAL.

PER CURIAM: The facts and circumstances surrounding this case are fully stated in the dissent. While the court agrees with much of Judge Leventhal's scholarly opinion, we believe that the Government's motion for summary judgment should have been granted by the District Court, not only on the issue whether a defect existed in the steering pitman arm of the 1959-60 model Cadillac automobiles, but also on the issue whether the defect was related to motor vehicle safety. The evidence is uncontradicted that General Motors sold six times as many pitman arm replacement for the 1959-60 Cadillac models as for adjacent model years; that steering pitman arm failures have occurred while these models were being driven; and that when the steering pitman arm fails, the driver loses control of the car. We hold that, under the statute, these uncontradicted facts demonstrate an "unreasonable risk of accidents" stemming from the defect. 15 U.S.C. § 1391(1) (1970).

The judgment of the District Court is reversed and these cases are remanded for determination of appropriate relief.

So ordered.

LEVENTHAL, Circuit Judge, dissenting in part: In the principal case before us, the government seeks enforcement against General Motors of a defect notification order, as well as fines. The district court denied summary judgment to the government. After trial, it held for General Motors.

The majority concludes that the Government should have been given a summary judgment, and remands for determination of appropriate relief.

I concur in the view that the district court judgment in favor of General Motors cannot stand. In my view, however, the case is one that is not appropriate for summary judgment and requires a retrial in accordance with what I consider to be sound principles. These principles are to some extent set forth in our prior opinion in the *Wheels* case. *United States v. General Motors Corp.*, 171 U.S.App.D.C. 27, 518 F.2d 420 (1975) [*Wheels*]. I think it would be most convenient if I proceed at this point as if I were writing an opinion for the court—presenting what I would consider the correct disposition.

This case concerns the standard for proving that a defect in an automobile model "relates to motor vehicle safety" within the meaning of the National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. §§ 1381 *et seq.* (the Act). The National Highway Traffic Safety Administration (the Administration) ordered General Motors (GM) to issue defect notifications¹ concerning the pitman arms of 1959 and 1960 Cadillacs, which break as a result of steering stress, causing sudden loss of steering control. An action seeking enforcement of this order was tried *de novo*² in the district court with the trial judge as the finder of fact.

¹ See note 7, *infra*.

² Jurisdiction over this enforcement action is based on 15 U.S.C. 1399(a). See note 7, *infra*.

The existence of a defect was conceded. GM offered proof that the pitman arm failures occur only in high stress situations, which involve low speed and parking maneuvers. The government introduced evidence of at least one incident in which pitman arm failure at lesser steering stress produced a dangerous situation as well as expert testimony on normal human reaction to loss of steering at low speed. GM presented a "risk analysis" which predicts the likely number of future injuries or deaths to be expected in the remaining service life of the affected models.

The district court found that GM had successfully rebutted the government's "slim *prima facie* case" on the basis of the risk analysis. In so deciding, the district court applied an incorrect legal standard as to the burden of presenting data of past harm caused by the defect. The correct standard leads to the conclusion that it was "clearly erroneous" for the district court to find that GM met its burden of rebutting the government's *prima facie* case.

I. BACKGROUND

A. Administrative Action

In 1972, acting on consumer complaints brought to its attention by the Center for Auto Safety, the Administration began an investigation of pitman arms failures in 1959-60 Cadillacs. The pitman arm is a critical component of the steering system. It transfers the angular motion of the steering wheel and shaft to lateral movement of the drag link and tie rods which turn the front wheels. When the pitman arm fails, steering control is suddenly lost. In September, 1972, the Administration requested information from Cadillac's manufacturer, GM, about the pitman arm. GM's summary of its investigation stated that, as of September 1972, it had sold approximately six times as many replacement pitman arms

for the 1959-60 models as for the adjacent years' models.³ Furthermore, the GM presentation showed that 1959-60 pitman arm design was quite different from that of those models and that on June 10, 1960, GM changed the hardness specification for the 1959-60 pitman arm "after end of regular production on service replacement parts," "to improve performance" under extreme loads.⁴

During 1973, the Administration reviewed the material presented by GM and customer complaints, contracted for testing of pitman arms,⁵ and conducted hearings in which GM participated. On January 10, 1974, the Administrator notified GM that he had "determined that a defect which relates to motor vehicle safety exists with respect to the steering pitman arm on 1959-60 model year Cadillac automobiles, in that these pitman arms are subject to sudden, and catastrophic failure, causing loss of steering control, and resulting in an unreasonable risk of accidents, deaths, and injuries to persons using the highways".⁶ The Administration directed GM to notify own-

³ The figures for the numbers of replacement pitman arms sold are:

Model years	Pitman arms sold
1957-58	4,519
1959-60	26,424
1961-62	4,423

Summary of General Motors review with the National Highway Traffic Safety Administration Friday, September 29, 1972 at fig. 11, Government exhibit 4, tab 2.

⁴ *Id.* at fig. 21.

⁵ The phrase "pitman arms" is used hereafter to mean pitman arms installed in 1959 and 1960 Cadillacs.

⁶ Letter from James B. Gregory, Administrator of the National Highway Traffic Safety Administration to E. N. Cole, President of GM at 2, Government exhibit 3, tab 34.

ers of the affected Cadillacs of the defects and urged GM to recall them for replacement at GM's expense.⁷

B. Enforcement Action

1. Preliminary Matters

On January 11, 1974, GM filed suit in the District Court for the Eastern District of Michigan to set aside the Administration order.⁸ A temporary restraining order (TRO) against the effectuation of the January 10 order was granted on the same day, but after a hearing the TRO was vacated and a preliminary injunction denied.⁹ That same day, Feb. 13, 1974, the government commenced an enforcement action in the District Court for the District of Columbia.¹⁰ In addition to enforce-

⁷ This order was issued by authority of 15 U.S.C. 1402(e) (1970). The Act was amended on Oct. 27, 1974 by Pub. L. 93-492. The defect notification provision, § 1402, was repealed and replaced by 15 U.S.C. §§ 1411-1420. Enforcement of notification order is governed by § 1415. The new provisions require the manufacturer to remedy the defect without charge, 15 U.S.C. § 1414(a).

The 1974 amendments do not apply to the present case since the notification was required to be issued "before the effective date" of the amendments. Pub. L. 93-492, § 102(c), 88 Stat. 1477. However, while the 1974 amendments changed the procedures and remedies associated with a safety related defect, they did not change the definitions of "defect" and "relate[d] to motor vehicle safety" which are at issue in this case. Therefore, these views on the standard and burden of proof of safety-relatedness have full prospective application.

See *United States v. General Motors Corp.*, 171 U.S.App. D.C. 27, 43 & n. 72, 518 F.2d 420, 436 & n. 72 (1975) [hereinafter cited as *Wheels*].

⁸ *General Motors Corp. v. Brinegar*, Civ. No. 4-70939 (E.D. Mich.).

⁹ *Id.*, Order Denying Motion for Preliminary Injunction, (Feb. 13, 1974), J.A. 26.

¹⁰ *United States v. General Motors Corp.*, Civ. No. 74-277 (D.D.C.) [hereinafter cited as *Pitman Arm*].

ment of its notification order, the government sought imposition of a \$400,000 civil penalty, pursuant to § 109(a) of the Act.¹¹

Both parties sought a change of venue of the other's case to their chosen forum. The parties and judges recognized that the interests of justice and convenience of all called for consolidation of the cases raising identical issues. In a joint order of July 8, 1974, the district courts ordered the cases consolidated in the District of Columbia.¹²

2. Denial of summary judgment

Both parties moved for summary judgment under Fed. R.Civ.P. 56(c). An action for enforcement of a notification order, under § 110(a), 15 U.S.C. § 1399(a), is tried de novo in the district court.¹³ The government has the burden of proof on the two elements required by the Act: 1) that a "defect" exists and 2) that the defect is "related to motor vehicle safety," i.e. involves an "unreasonable risk of accidents occurring as a result of the design, construction, or performance of motor vehicles" ¹⁴

¹¹ 15 U.S.C. § 1398(a) (1970). The 1974 amendments raised the maximum penalty to \$800,000, 15 U.S.C. § 1398(a). See note 7, *supra* and note 64, *infra*.

¹² Order in *General Motors Corp. v. Brinegar*, Civ. No. 4-70939 (E.D. Mich. July 8, 1974) and *Pitman Arm* (D.D.C. July 8, 1974), J.A. 44-46. The order was based on the ability of Judge Gasch to deal with the cases substantially earlier.

¹³ *Wheels*, *supra* 171 U.S.App.D.C. at 45, 518 F.2d at 438. See also § 10(e) (2) (F) of the Administrative Procedure Act, 5 U.S.C. § 706(2) (F).

¹⁴ The Act defines:

"Defect" includes any defect in performance, construction, components, or materials in motor vehicles or motor vehicle equipment.

[Continued]

The district court effectively granted summary judgment in favor of the government on the issue of existence of a defect. It based that judgment on 1) the disproportionately high replacement pitman arm sales, in the absence of any serious contention that this was due to causes other than a disproportionately high rate of pitman arm failures, and 2) tests performed by both parties showing that "the pitman arm can fail from metal fatigue after a large number of high stress maneuvers such as occur in parking and turning."¹⁵ On appeal, GM does not challenge this determination.

On the issue of safety-relatedness, the district court denied summary judgment to both sides. It acknowledged that:

[t]here is a certain appeal to the government's argument that a defect which may result in a loss of steering control is, *ipso facto*, a safety-related defect under the Act. One need only ask whether he would consider loss of steering control even at a very slow speed, a reasonable or unreasonable risk.¹⁶

However, GM contended that the pitman arm failures could only occur in low-speed, high-stress maneuvers and that the absence of reported instances of death or injury resulting from pitman arm failure in the long history

¹⁴ [Continued]

¹⁵ U.S.C. § 1391(11) and

"Motor vehicle safety" means the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against unreasonable risk of accidents occurring as a result of the design, construction or performance of motor vehicles and is also protected against unreasonable risk of death or injury to persons in the event accidents do occur, and includes nonoperational safety of such vehicles.

¹⁶ U.S.C. § 1391(1).

¹⁷ *Pitman Arm*, 65 F.R.D. 115, 117-18 (D.D.C. 1974).

¹⁸ *Id.* at 119.

of the affected cars showed an absence of "unreasonable risk." The district court stressed the standard of an *unreasonable* risk and the "commonsense" approach to safety questions under the Act.¹⁷ It concluded:

This is an issue of fact which cannot be resolved by logic alone. And it is an issue of material fact under the law of summary judgment.¹⁸

3. The trial

A non-jury trial of the issue of the safety-relatedness of the pitman arm defect was held from February 3 through February 11, 1975. Both sides presented metallurgical expert testimony on the process of fatigue-induced failure in pitman arms and the circumstances in which pitman arm separation could occur. The government presented the testimony of a driver, Karen Arbuckle, who had recently experienced a loss of steering during a 90° turn at 10-15 mph due to pitman arm failure in her 1969 Cadillac.¹⁹ In the incident, no one was injured. The government also presented the testimony

¹⁷ See *Wheels*, *supra*, 171 U.S.App.D.C. at 42-43, 518 F.2d at 435-36.

¹⁸ *Pitman Arm*, *supra*, 65 F.R.D. at 120.

¹⁹ The district court summarized the evidence on this incident thusly:

The US also offered the experience evidence of Mrs. Karen Arbuckle of Des Moines, Iowa. Mrs. Arbuckle testified that on November 7, 1974, the steering on her 1960 Cadillac failed without warning as she was making a right hand turn, and her vehicle proceeded diagonally into the curb on the opposite side of the street into which she was turning. Fortunately the oncoming traffic lane was empty so there was no collision. An examination of the steering system revealed a separation of the pitman arm resulting from fatigue-induced failure. Mrs. Arbuckle estimated that she was traveling between ten and fifteen miles per hour at the time she experienced loss of directional control.

of a professional driver and two experts in human reactions on the danger of sudden loss of steering, even in low speed maneuvers. One of the latter experts, Duncan Miller, testified that the median time between pitman arm failure in 5 mph U-turn and commencement of braking "would be in excess of 1.6 second."²⁰ Raymond Caldwell, the professional driver, testified from tests with an artificially separable pitman arm that the car entered the opposing lane of traffic $1\frac{1}{8}$ seconds after separation in a 5 mph 90° turn, and $\frac{2}{3}$ of a second in a 10 mph U-turn.²¹

In rebuttal, GM offered further evidence, a "risk analysis" by one of its experts in fracture mechanics, Dr. Alan Tetelman.²² From this analysis, based on data in GM's files on pitman arm failures and general accident data, Dr. Tetelman predicted that for all the approximately 40,000 affected Cadillacs still on the road, during their remaining service life, there would be a very small chance (less than 1%) of a fatality. His analysis projected only one incapacitating and one non-incapacitating injury. The government objected to the data used by Dr. Tetelman and called a statistical expert to criticize his methodology and the significance of his result.

On April 25, 1975, the district court filed its findings of fact and conclusions of law in these cases. The court found that the government had:

made out a slim *prima facie* case on the testimony of Mrs. Karen Arbuckle concerning a recent pitman arm failure in her 1960 Cadillac and the metallurgical and metal fatigue tests and testimony of Dr. Volker Weiss. GM countered with the risk analysis and fracture mechanics tests and testimony of Dr. Alan Tetelman. Since the government as plaintiff

²⁰ Trial transcript [hereinafter cited as Tr.] 342, J.A. 224.

²¹ Tr. 281-82, J.A. 186-87.

²² See section IV.A, *infra*.

did not bear its burden of proof, the Court finds that the pitman arm defect in model year 1959-60 Cadillacs does not create an *unreasonable* risk of accidents, injuries or death, and concludes that General Motors need not issue a defect notification to owners of those automobiles.²³

On April 28, 1975, the district court entered an order that set aside the Administrator's order to GM to issue defective notices and dismissed the cases.²⁴

II. THE STATUTE

A. Safety Related Standard

This case presents issues of the Act's defect notification provisions not resolved in *Wheels*, 171 U.S.App.D.C. 27, 518 F.2d 420 (1975).

Wheels involved the standard of proof of a "defect" in a type of pickup truck wheel; the defect, if established, undisputedly related to safety. Here, a defect in the pitman arm is conceded. The issue is safety-relatedness, the standard for determining whether the defect is "related to motor vehicle safety." *Wheels* came to us on summary judgment, whereas the case at bar was tried to the court, after summary judgment was properly denied, and the issue is whether the district court applied the correct standard on the burden of proof. In spite of these differences, both cases require examination of a provision employed by Congress to enhance safety in connection with automobiles. *Wheels* provides guidance in elucidating the standard of proof for requiring a defect notification.²⁵

²³ *Pitman Arm*, *supra*, Memorandum at 3-4 (Apr. 25, 1975), J.A. at 699-700.

²⁴ *Pitman Arm*, *supra*, Order (Apr. 28, 1975), J.A. 711.

²⁵ *Wheels*, *supra*, 171 U.S.App.D.C. at 39-44, 518 F.2d at 432-37.

The key concept in the statutory scheme is that of "unreasonable risk of accidents." As we concluded by examination of the legislative history in *Wheels*, this concept is to be applied in a "commonsense" manner, balancing safety benefits against economic costs.²⁶

Section 1 of the Act states its overall purpose:

Congress hereby declares that the purpose of this chapter is to reduce traffic accidents and deaths and injuries resulting from traffic accidents.²⁷

This broad purpose is reflected in the central provision relating to this case which contains this definition in § 102(1):

(1) "Motor vehicle safety" means the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against unreasonable risk of accidents occurring as a result of the design, construction or performance of motor vehicles and is also protected against unreasonable risk of death or injury to persons in the event accidents do occur, and includes nonoperational safety of such vehicles.²⁸

It may be noted that the statutory language relates to protection against an unreasonable risk of "accidents," and separately to protection against "unreasonable risk of death or injury" in the event an accident occurs.

²⁶ *Id.* at 40-41, 518 F.2d at 433-34. Only a fraction of the affected Cadillacs are still on the road. In this respect the cost of precautionary repair and the risk thereby averted are diminished proportionately. If, as appears from the record, the cost of replacing the pitman arm is relatively modest, it may well be that the administrative expense in ascertaining and notifying the owners of 1959-60 Cadillacs still in use may be significant in comparison to the replacement costs.

²⁷ 15 U.S.C. § 1381.

²⁸ 15 U.S.C. § 1391(1).

Senator Mondale, the author of the defect notification amendment in the Senate bill, stated in debate:

I do not consider it necessary to speculate whether a wheel falling off without warning is a safety hazard. Obviously, it is It is my view that the fair-warning provision is essential to make sure that the automobile consumer is warned of hazards such as this.

It is only fair, in view of the vast organizations established for the sale and service of these automobiles to notify the owner in clear and unmistakable terms, once a safety defect is known that a safety hazard is involved, what it is, and what corrective steps can be taken.²⁹

The House Report on the defect notification section states:

This section was included to afford a means for uniform and prompt notification to vehicle owners of the discovery of any defects related to safety. "Defect" is a defined term which includes any defect in performance, construction, components, or materials in motor vehicles or motor vehicle equipment. The provisions of this section do not alter other courses available to the Secretary, with respect to the deficiencies which necessitate notification, such as the imposition of a civil penalty or the seeking of injunctive relief. It is the committee's intention that the Secretary will exercise his authority under this section to publish notices and information concerning defects in those situations where so doing will bring about a *higher level of safety*. In this connection, the committee is confident that the manufacturers will be active in notifying purchasers and users so that defects will be corrected as quickly as possible.³⁰

²⁹ 122 Cong. Rec. 14247 (June 24, 1966).

³⁰ H.R. Rept. 89-1776 at 28 (1966) (emphasis added).

Out of any manufacturing process, some products are bound to be "lemons." These failures may be due to flaws in the design, construction (including occasional human error on the production line) or inspection process. When the defects are occasional or isolated, the risk associated with them is part of the ordinary danger of operating an automobile; minimizing them is one aspect of the quality of a manufacturer's product which consumers choose to pay for. Total elimination of this risk would require a standard of design, construction, and testing that would produce a purchase price so prohibitive that it cannot be taken as the contemplation of Congress. And that obtains even though such a defect may be in a vital component and result in a safety risk.

However, the matter stands quite differently where it appears that the defect is systematic and is prevalent in a particular class of cars. Such a defect may be identified by an unusually high rate of failures in actual operation or by tests showing that failure is likely under normally encountered circumstances.

In the event of a systematic defect, which leads to failures in a vital component, such as is the case with the pitman arms causing sudden loss of steering, this is *prima facie* an "unreasonable risk" for which Congress prescribed the additional protection (over and above a manufacturer's customary quality control) of notification, and now, recall.³¹ Proof of the pitman arm defect, which leads to its failure and loss of steering under foreseeable driving conditions, creates a strong presumption that the defect "relates to motor vehicle safety." The presumption is rebuttable. The reasons for rejecting the government's contention that such a defect is *per se* related to safety are set out below. Certainly, however, if this case had arisen near the beginning of the cars' service life, when there was little real-life experience with the cars, such

³¹ See note 7, *supra*.

proof would suffice to obtain enforcement of a notification order without waiting to see how many people would be hurt or killed.

With respect to 1959-60 Cadillacs, there was no prompt action in response to the pitman arm defect to notify owners or recall the car for repairs, nor has there been to date. Rather, during the period that has already elapsed—the bulk of the cars' service life—there have undoubtedly been many pitman arm failures; the safety consequences of those failures are unknown, unknown to the parties and to the courts.

During that period, GM, which knew early on of an unusual number of pitman arm failures,³² had the opportunity to develop data concerning experiences with pitman arms, the universe of failures and consequences thereof. This it had the power to acquire, as a manufacturer, by suitable notice to and inquiry of its dealers and, ultimately, its customers.

Instead, GM relies, in effect, on the lack of notifications sent to it on the initiative of consumers, *i.e.* on the dearth of complaints.

B. *Burden of Rebuttal*

The government's *prima facie* case is not a conclusive demonstration of a safety-related defect. GM should have the opportunity to show that the failures occur in circumstances in which loss of steering is not dangerous. In this case, GM maintains that the pitman arms fail only where the steering mechanism is subject to high stress, typically at low speeds and parking. GM further claims that loss of steering in such maneuvers is not dangerous. These contentions were supported by an offer of proof in

³² See text at note 4, *supra*.

affidavit form, and so the district court properly denied the government's motion for summary judgment.³³

GM offered two types of evidence in support of its two part contention which constitutes its rebuttal case. These two strands are discussed in Parts III & IV of this opinion in some detail, because they serve as models of types of evidence available to a manufacturer coping with the burden of rebuttal.

The first type of evidence was offered by GM in support of its contention that pitman arm failures occur essentially only under high stress. This evidence relates to the mechanism responsible for pitman arm failures. The evidence stems from tests on Cadillacs with the defective pitman arms and metallurgical interpretation of failed pitman arms. One point illustrated by this type of evidence is the possibility for a manufacturer to meet

³³ See *Wheels, supra*, 171 U.S.App.D.C. at 47-53, 518 F.2d at 440-46.

Summary judgment in favor of the government was granted in a case with some similarities to the present one, albeit one which manifested more dramatic indication of the defect. *United States v. General Motors*, 417 F. Supp. 933 (D.D.C. 1976) (*Quadrajet Carburetor*). There was extensive experience with the affected cars, the model involved having "used up" about 83% of its service life. The carburetor defect, which GM apparently acknowledged, caused the engine to fail and gasoline leakage, which led to the occurrence of at least 70-300 known fires in the engine compartment. The incidents presented were potentially very dangerous, but in fact resulted in only minor injuries. GM "asserted that the incidence of future plug failure would be negligible, and that based on a statistical prediction there will be less than one injury and no deaths as a result of the defect." *Id.* at 935. Since the record in that case is not before us, it is not possible to form any opinion whether GM's claim of a disputed material fact precluded summary judgment. The facts of the *Quadrajet Carburetor* case raise the possibility that the manifestation of the defect might be so obviously dangerous that summary judgment *might* be proper.

its burden of rebuttal, on at least a portion of the overall safety-related issue, entirely by experimental proof, i.e. testing and metallurgical analysis, without the necessity of offering experimental proof based on a survey of significant amounts of road experience.

Both parties offered experimental evidence of this first type. Both put on witnesses with expertise in metallurgy. The government also offered experts in drivers' reactions; the manufacturer's supplement to the metallurgical evidence was the risk analysis previously noted. Both sides interlarded their experts with projections on the ultimate issue of the magnitude of risk based on common sense.

As to driving expertise, central to Dr. Tetelman's risk analysis, the government relied on the Arbuckle incident³⁴ to verify that the risk of danger from pitman arm failure is not merely theoretical. There are situations, after all, in which even one instance verifies a general proposition.³⁵

A manufacturer undertaking to rebut the government's prima facie case by an empirical showing based on experience accumulated during a substantial period of automobile operation must be able to make a valid prediction of negligible future risk from operation of the cars based on a significant data base. GM attempted to make this prediction for the 1959-1960 Cadillacs still in service through Dr. Tetelman's "risk analysis." The question is whether this analysis, essentially a statistical inference and prediction, rests on a data base adequate to carry the manufacture's burden of rebuttal.

³⁴ See note 19, *supra*.

³⁵ [I]t is enough to validate the principle of the electric light bulb if only one is seen at work.

International Harvester Co. v. Ruckelshaus, 155 U.S.App.D.C. 411, 443, 478 F.2d 615, 647 (1973).

There is no legal requirement at present on either the government or manufacturers to keep comprehensive data on automobile accidents, such as the Federal Aviation Administration maintains on commercial aviation. The store of recorded experience must nevertheless be significant if it is to serve as the foundation for empirical rebuttal by a manufacturer. This requirement is a simple matter of the reliability of the rebuttal proof. And there is justice in this allocation to the manufacturer of the burden of compiling significant data on the causes and consequences of mishaps in its cars. Manufacturers have the channels, through their dealers, and the business motivation of good will and customer satisfaction, to acquire and maintain significant data on performance.³⁶

III. ISSUE OF WHEN PITMAN ARM FAILURES OCCUR

A. Evidence

GM contends that pitman arm failures occur essentially only in high stress maneuvers. At trial, GM presented

³⁶ We have held that the burden is shifted where evidence pertinent to the issue is particularly within the knowledge of the defendant, *International Harvester Co. v. Ruckelshaus*, 155 U.S.App.D.C. 411, 439, 478 F.2d 615, 643 (1973). *Cf. res ipsa loquitur* cases concerning proof of negligence in which the burden is shifted to the defendant(s) due to his (their) greater access to the relevant evidence, *e.g. Ybarra v. Spangard*, 25 Cal.2d 486, 154 P.2d 687 (1944).

A final point is the interrelation of the manufacturer's burden of rebuttal of the government's *prima facie* case to the ultimate issue in this case—whether or not to require action in the interest of the public's safety. Justice Harlan explained the role of the standard (more generally, the burden) of proof in effectuating society's choice between the two types of potential error in a judgment:

the choice of the standard for a particular variety of adjudication does, I think, reflect a very fundamental assessment of the comparative social costs of erroneous factual determinations.

In re Winship, 397 U.S. 358, 370 (1970) (Harlan, J., concurring).

expert metallurgical evidence on the mechanism by which pitman arm failures occur. Dr. Kenneth Packer and Dr. Alan Tetelman testified that the fatigue-induced failure begins with a crack in the "necked down" portion of the arm, where the cross-section is smallest. The crack propagates as stress is applied in various steering maneuvers; the propagation rate increases with greater stress and size of existing crack(s). When a stress is applied which the intact area cannot sustain, the pitman arm fails. This process is called brittle fracture.

GM conducted tests to determine the stress felt by the pitman arm in various driving situations.³⁷ Both sides used these measurements in their analysis. The crucial point is that the load is highest in quasi-stationary (parking) and slow maneuvers, such as a 5 mph U-turn. The stress in these maneuvers is over 2000 pounds, while in maneuvers over 10 mph, even jolting ones, the stress is close to 1000 pounds or less.

GM's experts presented a theory of "proof testing" which indicates that pitman arm failures will occur only

³⁷ Car Maneuver	Pitman Arm Load (lbs)
70 mph slow lane change	212
70 mph fast lane change	412
40 mph hard cornering	564
30 mph moderate S-turns	470
15 mph 90° turn	670
25 mph pothole	974
normal parking	2237
parking with manual effort (58 lbs rim pull)	2982
35 mph Belgian blocks	437
(55 mph) stops on chatter bumps	750
(45-55 mph) cornering on chatter bumps	1025
5 mph U-turns	2144
5 mph driveway maneuver	2330

N.L. Keller, Pitman Arm Load Determination in a 1960 Cadillac, Final Report at 63 (April 3, 1974), J.A. 632.

in the high stress, low speed maneuvers. In normal operation, the steering mechanism is involved in a series of high and low stress events. The high stress events "proof test" the pitman arm. If a crack is developing, the pitman arm will fail when a high stress is applied exceeding the strength of the remaining cross section. Dr. Tetelman testified that a Cadillac would have to encounter at least 4000 potholes or many turning maneuvers at moderate or high speed without ever parking to permit the crack to extend to the point where it could fail above low speed.³⁸ This theory was supported by GM's experts' inspection and interpretation of the fractured surface of several pitman arms which had been made to fail in tests. They testified that the intact area before the final failure was about half of the original cross-sectional area. This is consistent with their view that the pitman arms would tend to fail with a relatively large intact area, under the influence of a large stress.

The government's metallurgical expert, Dr. Volker Weiss, disagreed with GM's experts in both their view of the failure mechanism and interpretation of the failed pitman arm surfaces. Dr. Weiss disputed the applicability of "proof testing," based as it is on a brittle fracture process. He testified that pitman arms can deform plastically at high stress; this means, apparently, that with a certain application of high stress, a pitman arm can be seriously weakened, but not fail until application of the final blow at moderately low stress. He interpreted GM's test-failed pitman arm³⁹ as having an intact cross section just prior to separation only a fraction (less than one-fifth) of the 50% figure testified to by Dr. Packer.⁴⁰ Dr. Weiss gauged this previously intact area to have been

³⁸ Tr. 702-705C, J.A. 347-53.

³⁹ GM Exhibits 12 & 15, J.A. 645-46.

⁴⁰ Compare Dr. Weiss's testimony, Tr. 461-65, J.A. 265-69, with that of Dr. Packer, Tr. 552-60, J.A. 300-08.

roughly circular with a diameter of about $\frac{1}{4}$ of an inch, which agreed with his previous examination of pitman arms that failed in actual use, including the Arbuckle pitman arm. He used this figure in preparing pitman arms for experiments in which separation occurred at final applied loads of less than 300 pounds.⁴¹ GM argued that Dr. Weiss's technique of machine notching the test pitman arms made them unrepresentative of pitman arms with real cracks, while Dr. Weiss maintained that this difference was not significant in that a given size crack would weaken the arm more than a notch of the same size.⁴²

B. Findings and Role of the Trial Court

The district court found, on the issue of unreasonable risk of failure above low speed that the government had not met its burden of proof. It reasoned:

The allegation that Dr. Weiss' experiments were not "true to life" was never rebutted by the government. Thus the "battle of the experts" was a stand-off. The government did not show by a preponderance [*sic*] of the evidence that a fatigue crack would normally propagate so far that the remaining cross-section could break under normal or high speed maneuvers.⁴³

Since the issue of when pitman arm failures occur is part of GM's rebuttal case,⁴⁴ this conclusion reflects an incorrect allocation of the burden of proof. In general, under Fed. R. Civ. P. 52(a), the appellate court is bound by the district court's findings of fact unless they are

⁴¹ Tr. 124, J.A. 132.

⁴² Tr. 123, 125, 145, J.A. 131, 133, 142.

⁴³ *Pitman Arm*, *supra*, Memorandum at 11 (Apr. 25, 1975), J.A. 707.

⁴⁴ See section II.B, *supra*.

"clearly erroneous."⁴⁵ The scope of review is narrower, and particular caution is indicated, where credibility of witnesses is involved.⁴⁶ However, "insofar as that conclusion derived from the court's application of an improper standard to the facts, it may be corrected as a matter of law."⁴⁷

⁴⁵ A finding is "clearly erroneous" when although there is evidence to support it, the reviewing court is left with the definite and firm conviction that a mistake has been committed.

United States v. U.S. Gypsum Co., 333 U.S. 364, 395 (1948).

⁴⁶ Like any other issue of fact, final determination requires a balancing of credibility, persuasiveness and weight of evidence. It is to be decided by the trial court and that court's decision, under general principles of appellate review, should not be disturbed unless clearly erroneous. Particularly is this so in a field where so much depends upon familiarity with specific scientific problems and principles not usually contained in the general storehouse of knowledge and experience.

Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 609-10 (1950). See also Zenith Radio Corp. v. Hazeltine Research, 395 U.S. 100, 123 (1969); Jackson v. United States, 122 U.S.App.D.C. 324, 327, 353 F.2d 862, 865 (1965).

⁴⁷ United States v. Singer Mfg. Co., 374 U.S. 174, 194 n. 9 (1963). We have summarized the "clearly erroneous" standard, concluding as follows:

On the other hand, a finding is "clearly erroneous" if it is without substantial evidentiary support or if it was induced by an erroneous application of the law. Beyond that "[a] finding is 'clearly erroneous' when although there is evidence to support it, the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed." In reviewing the trial judge's decision in this case, then, we must look to all of the evidence of record to determine whether the findings can pass muster. And in making that determination, we also bear in mind that conclusions of law do not find shelter in the "clearly erroneous" requirement.

[Continued]

The district court was affected by its apprehension that the government had failed to rebut the allegations that Dr. Weiss's experiments were not "true to life." By the same token, the court should have been troubled by the absence of GM's rebuttal to the Arbuckle incident. The court was presented with conflicting testimony of experts as to whether pitman arms fail virtually only in high stress situations. Mrs. Arbuckle gave testimony of a real life event which supported the government's theory. According to GM's own measurements, that pitman arm failure occurred at low stress.⁴⁸ GM seeks to dismiss the Arbuckle evidence as "only one incident of alleged pitman arm failure."⁴⁹ This misses the point. Where there is a choice between theories which say that something is possible or impossible, there is special significance in a real life incident, albeit a single instance, in which it has happened.

⁴⁸ [Continued]

Case v. Morrisette, 155 U.S.App.D.C. 31, 38-39, 475 F.2d 1300, 1307-08 (1973). See also Wright & Miller, Federal Practice and Procedure: Civil § 2585 (1971).

⁴⁹ The Keller table, *supra* note 37, gives a stress of 670 lbs. for a 15 mph 90° turn. GM attempts to bring the Arbuckle incident into the low speed class, stating:

[a] Government expert witness (Raymond Caldwell) testified that a Cadillac speedometer reads 12 to 13 mph at a true speed of 10 mph. Mr. Arbuckle's 10 to 15 mph reading therefore corresponds to a true speed of from 8 to 11 mph and decreasing.

GM Br. at 12, n. 12. There is no finding of the trial court to the effect of a reduced Arbuckle speed. Furthermore, there is no listing in the Keller table for a 10 mph 90° turn—a commonplace maneuver. Failure to introduce this datum which is essential to gauging the impact of this reduced speed argument can only be interpreted to show that the datum would be unfavorable to GM, i.e. that at best (for GM), the applied stress would remain in the low (1000 lbs. or less) range.

⁴⁸ GM Br. at 12.

The district court referred to the Arbuckle incident in making its overall balance of the risk from pitman arm failures,⁵⁰ but did not gauge the effect of the occurrence on the supposed "stand-off" in the "battle of the experts."

Apart from the application of an incorrect burden of proof, there is a problem in the district court's cursory treatment of the when-pitman-arms-fail issue as a stand-off. The mere fact that experts disagree does not mean that the party with the burden of proof loses. The finder of fact has to make the effort to decide which side has the stronger case. This can be based on the demeanor of the witnesses (if so, the trial judge should say so) or the intellectual strength of the evidence and arguments based thereon.

While an appellate court is limited in its review of factual findings, it may rightfully consider whether the trial judge has weighed and appraised the case in the light of the "whole record." There may be cases of true equipoise of evidence, but this should not be used as the ground of decision unless there is a reasoned conclusion that the efforts of the trial judge at weighing evidence leave no alternative.

The obligation on the trial judge to make this effort and judgment is particularly pronounced in this type of case, involving a regulatory process to safeguard public safety prospectively. Although an agency is involved in bringing the case, there is no administrative decision-making. The district court must decide the issue of whether there is a safety-related defect de novo. Such a safety case calls for more than cursory application of

⁵⁰ Therefore the government's demonstration that the Arbuckle-type experience has happened did not prove that it would happen sufficiently often to create an unreasonable risk to safety. On the contrary, GM offered Dr. Tetelman's risk analysis as evidence that it will not. *Pitman Arm, supra*, Memorandum at 13 (Apr. 25, 1975), J.A. 709.

traditional burden of proof concepts. Rather, it requires a searching inquiry by the trial judge of the totality of the evidence in the case. On the basis of this evidence, he must go through the intellectual process of resolving the issues, rather than throwing up his hands in the face of conflicting evidence.⁵¹

In the course of this inquiry, the judge's role in eliciting evidence may go beyond asking questions of witnesses. The active role of the federal judge in criminal trials is well established.⁵² The similar considerations

⁵¹ This conclusion is in the context of a trial and for the purpose of applying the correct legal standard. There is, of course, no requirement that the judge satisfy himself that his conclusion represents "scientific reality." Rather, what is required is careful analysis and weighing of the evidence presented to reach a factual conclusion adequate for application of the proper legal standard.

⁵² Our cases have consistently recognized the important role the trial judge plays in the federal system of criminal justice. "[T]he judge is not a mere moderator, but is the governor of the trial for the purpose of assuring its proper conduct and of determining questions of law."

The precepts of fair trial and judicial objectivity do not require a judge to be inert. The trial judge is properly governed by the interest of justice and truth, and is not compelled to act as if he were merely presiding at a sporting match. He is not a "mere moderator." As Justice Frankfurter put it, "[f]ederal judges are not referees at prize-fights but functionaries of justice." *Johnson v. United States*, 333 U.S. 46, 54, 68 S.Ct. 391, 395, 92 L.Ed. 468 (1948) (dissenting in part). A federal trial judge has inherent authority not only to comment on the evidence adduced by counsel, but also—in appropriate instances—to call or recall and question witnesses. He may do this when he believes the additional testimony will be helpful to the jurors in ascertaining the truth and discharging their fact-finding function. What is required, however, are reins of restraint, that he

apply when a case involves the safety of the public. In a non-jury trial, there is merger of the functions of umpire, trier of fact, and decider of the law in the trial judge.⁵³ In the interest of justice, and the public, the judge may rightly express his critical concerns and probe for responses.

C. Disposition of the Issue

If the case turned on this issue of when pitman arm failures occur, we would have to remand for further findings. This court cannot reach a conclusion since we have not had the trial court's opportunity of seeing and hearing the contending evidence. Neither could we be confident of the intent underlying the district court's "stand-off" reference. If this reflects a judgment that the evidence truly approximates equipoise, GM loses for failure to sustain its burden of rebuttal. But it may be, and this is intimated by the flavor of the opinion, that the district court found GM's evidence on the issue preponderant, and merely expressed this result in a soft or minimal way, consistent with its view of the burden of proof, but not adequate under our view.

Without resolving this uncertainty, this opinion will assume, *arguendo*, that the district court would have found that GM had met its burden on this issue and that we could not say that this finding was clearly erroneous. Even making this assumption, most favorable to GM,

not comport himself in such a way as to "tilt" or oversteer the jury or control their deliberations.

United States v. Liddy, 166 U.S.App.D.C. 95, 105, 509 F.2d 428, 438 (1974), *cert. denied*, 420 U.S. 911 (1975).

But see Frankel, *The Search for Truth: An Umpireal View*, 123 U. Pa. L. Rev. 1031, 1041-45 (1975).

⁵³ See Uviller, *The Advocate, the Truth, and Judicial Hackles: A Reaction to Judge Frankel's Idea*, 123 U. Pa. L. Rev. 1067, 1069 n. 1 (1975).

GM has not carried its overall burden of rebuttal. This opinion now turns to the remaining issue of danger from pitman arm failure even restricted to low speed situations.

IV. UNREASONABLE RISK AT LOW SPEEDS

A. Evidence

In rebuttal to the government's "commonsense" prima facie case, buttressed by expert testimony on human reactions and the testimony of Mrs. Arbuckle,⁵⁴ GM offered the "risk analysis" testimony of Dr. Alan Tetelman.⁵⁵ This involved a supposedly conservative⁵⁶ estimate of the expected harm from pitman arm failures in the remaining service life of the 1959-60 Cadillacs based on data of previous experience with those cars and general accident statistics. GM manufactured 284,456 1959-60 Cadillacs, of which about 43,400 were still in use in 1974. GM estimated that these remaining cars would continue in use, on the average, a little over three years. On this basis, of the total miles driven in the cars, 96% of the model's service life had already occurred.

Dr. Tetelman used as his measure of risk an index called "total severity" which is the product of the mean severity per pitman arm failure times the expected number of pitman arm failures in the remaining model life. The concept of severity used was that used by the Consumer Product Safety Commission (CPSC).⁵⁷ This scale,

⁵⁴ See text at notes 19-21, *supra*.

⁵⁵ See Tetelman and Burack, *An Introduction to the Use of Risk Analysis in Accident Litigation*, 42 Journal of Air Law & Commerce 133, 144-53 (1976).

⁵⁶ This means that at each step of the analysis where there were uncertainties, the least safety and greatest harm were supposedly assumed. But see text at nn. 58 & 59, *infra*.

⁵⁷ The CPSC collects and analyzes data by authority of 15 U.S.C. § 2054(a)(1). For a description of the National

based on a unit of a day lost due to injury, gives numerical values to injuries ranging from mild ones to death.

The mean severity of a pitman arm failure was taken as the probability that a pitman arm failure would lead to an accident times the severity calculated for an average accident caused by loss of steering due to pitman arm failure. The probability of failure was simply taken from GM's service engineer's file on the pitman arm problem. This contained an "events summary," which recorded all of the problem occurrences (complaints) allegedly related to pitman arms which were known to GM. Of these 158 events, as Loren Papenguth, GM's assistant chief engineer, testified, those that GM could not confirm⁸⁸ as involving the pitman arm were eliminated, which included some 19 accidents. Of the 64 or 65 "confirmed" pitman arm failures, Mr. Papenguth testified that two involved minor accidents. Thus, Dr. Tetelman

Electronic Injury Surveillance System (NEISS), *see* W. Kimble, Federal Consumer Product Safety Act § 73 (1975) and the CPSC monthly publication, NEISS News.

⁸⁸ On February 10, 1975, Mr. Papenguth testified:

Well, from the total of some 158 events that we examined we were able to determine or confirm on the order of 64 or 65 Pitman Arm separations fatigue-induced.

And of those 64 or 65 fatigue-induced separations, we found two cases of accidents reported which, from all indications, were minor certainly with no injuries and no deaths involved.

Tr. 1048.

[W]e used the term "inconclusive" in our judgment for those cases where the evidence was inadequate to confirm a Pitman Arm separation, that a Pitman Arm separation had occurred; that the circumstances and all of the material that had been submitted to us, included in our events file, would not merit a conclusion or would not justify a conclusion one way or the other.

Id. at 1050.

took as the probability of accident from a pitman arm failure, the ratio 2/64.

The average severity of a pitman arm accident was computed using data from police accident reports in Texas during 1969-73 and from the National Safety Council on the distribution of accident severity depending on the speed preceding the accident. Dr. Tetelman took the Texas accidents resulting from steering defects (as reported in the police reports) for his data base on the frequency-severity distribution. The Texas police reports used the rough National Safety Council Classification: fatal; incapacitating injury; non-incapacitating injury; no injury. Dr. Tetelman recalculated these on his translation into the equivalent CPSC values. In view of his testimony that pitman arm separations would only occur at low speeds, Dr. Tetelman normalized the steering defect distribution to the distribution of all accidents in the low speed (0-9 mph) range. With these assumptions, he arrived at a figure for the mean severity of a pitman arm failure.

The expected future number of pitman failures was based on a survey of 613 1959-60 Cadillac owners (commissioned by the government), in which 17 stated that they had suffered pitman arm failures. The calculation assumed that, since there was no indication of an upturn in failure rate, the future failure rate would be the same as the historical one. Using GM's data on the number of remaining Cadillacs in use and their expected three year remaining life, Dr. Tetelman calculated that there would be about 250 pitman arm separations in the future (as of 1974).

Putting these two factors together, the mean severity and the future expected frequency, Dr. Tetelman predicted that the conservatively calculated future harm was: a very small chance (less than 1%) of a fatality

and about one incapacitating and one non-incapacitating injury.

The government presented numerous objections and rebuttals to Dr. Tetelman's risk analysis. It objected to the use of the Texas accident data as hearsay for which there was no evidence presented of its accuracy and reliability. The government criticized Dr. Tetelman's analysis for disregarding, *i.e.*, assigning no value whatever to: accidents involving mild injuries less than internal organ injuries, *e.g.* sprains, bruises and scalds; accidents involving "possible injury," *i.e.*, injuries claimed subjectively, but not medically verifiable objectively, at the time of the accident (with no "reserve" for the possibility of later confirmation with symptoms and even death); and accidents involving property damage but no injuries.⁵⁹

The government further criticized Dr. Tetelman's reliance on GM's engineering files on pitman arm complaints for the ratio 2/64 on the basis of uncertainties in how the file was compiled and made to include other data available from GM and its dealers. The survey of Cadillac owners used to estimate the expected future number of pitman arm failures was never introduced in evidence and was considered unreliable by the government. The government pointed out that the fraction of past pitman arm failures implied by the survey was undercut by other, more solid evidence, being only one-fourth as great as the ratio implied by the excess (over adjacent models) of replacement pitman arms sold as compared to the total 1959-60 Cadillacs sold. Finally, the government presented an expert in statistics to rebut the methodology of Dr. Tetelman (who did not claim expertise in statistics) in inferring the risk of future harm, as well as criticizing the statistical significance of his input data.

⁵⁹ Tr. 874-78, J.A. 464-68.

B. Findings

In finding that GM had rebutted the government's "slim *prima facie* case" ⁶⁰ with Dr. Tetelman's testimony, the district court stated:

In the case of these Cadillacs, there is no documented injury or death resulting from pitman arm failure, as NHTSA has admitted. Furthermore there are few documented accidents. The cars are now fifteen years old. 96% of their life had been completed by the end of 1973. At the start of 1975 there were approximately 33,000 still in service. And the vehicles have travelled, in the aggregate, approximately 24 billion miles. *On the basis of this extensive past experience*, Dr. Tetelman projected a negligible risk in the extremely limited future that remains for these automobiles.¹⁵

¹⁵ Dr. Tetelman used other data as well, but the Court relies on that portion of his analysis which is based on the life history of these automobiles.⁶¹

It is, candidly, puzzling to ponder the district court's statement that it relied only on the 96% life history "portion" of Dr. Tetelman's "risk analysis" testimony, presumably meaning that the court severed that part of the analysis involving data challenged by the government, such as the Texas accident data and the survey of Cadillac owners. Yet these were all essential elements of Dr. Tetelman's purportedly conservative estimate of the likely injuries to be expected from pitman arm failures. The "life history," *i.e.* that 96% of the model's service life has expired, does not indicate negligible risk in the remaining life of the cars in use unless coupled with proof of lack of accidents in the cars' use in the past. There is

⁶⁰ *Pitman Arm*, *supra*, Memorandum at 3 (Apr. 25, 1975), J.A. 699.

⁶¹ *Id.* at 12-13, J.A. 708-09 (emphasis added).

an unstated assumption to the effect that if there had been injuries and death from pitman arm failures in the past, it would be known by someone. This presumption surfaces in the first two sentences quoted above. If the government could not come up with "documented injur[ies] or death[s]," the district court would draw an inference based on this presumed safe "life history" of the model.

The district court's finding on GM's rebuttal thus reflects an incorrect allocation of the burden of proof, as developed in section II.B, *supra*, and therefore should be set aside.⁶² Application of the correct standard leads to the conclusion that the "risk analysis" evidence presented in this case is incapable of carrying GM's burden of rebuttal. It suffices to focus on the figures used: that of the 64 complaints in the GM files which were considered "confirmed" instances of pitman arm failures, only two involved "reportable accidents." The government's expert in statistics testified that, this was a miniscule sample of the thousands of pitman arm failures indicated by the replacement part sales,⁶³ which would suffice by itself as proof of the characteristics of pitman arm failures generally. Significantly, there was no attempt by GM to prove that this was a representative sample.

VI. CONCLUSION

Logically, this would indicate that we should reverse the judgment and order judgment entered for the government on remand. However, the case was not tried before us. This appellate court may not properly act as the finder of fact, since there may be some ramifications of the evidence or fact-finding functions we have not fully discerned. In any event, there must be a remand or determination of appropriate relief.

⁶² See note 47, *supra*.

⁶³ Tr. 1237.

This opinion concludes that in the remand for further proceedings the district court may and should reconsider the safety-related issue in light of the standard of proof and rebuttal set forth herein.

In its enforcement action, the government sought a civil penalty of \$400,000 for failure to furnish the defect notifications.⁶⁴ In approving the statutory scheme whereby a manufacturer runs the risk of such a penalty by litigating the merits of a notification order after failing to obtain temporary relief, a three-judge district court approved the purpose of deterring frivolous litigation, while permitting substantial challenges to be raised.⁶⁵ The Supreme Court affirmed, *Ford Motor Co. v. Coleman*, 425 U.S. 927 (1976). The district court left open the standard and interplay of factors which determine the actual amount of the penalty set.⁶⁶ The district court has latitude to take into account its view of the seriousness of the safety-related defect and the manufacturer's good faith.

* * *

⁶⁴ Section 109(a), 15 U.S.C. 1398(a), provided, at the time the government brought suit, a civil penalty of \$1000 per violation, *i.e.*, for each affected automobile, with a maximum of \$400,000 for each related series of violations. The 1974 amendments, which do not affect this case, increased the maximum to \$800,000. See note 7, *supra*.

⁶⁵ *Ford Motor Co. v. Coleman*, 402 F. Supp. 475, 490 (D.D.C. 1975), *affd.* 425 U.S. 927 (1976).

⁶⁶ More important, the \$800,000 figure represents a maximum, not a minimum. There clearly is room for the court to set a substantially lower figure. The statute expressly authorizes the court to consider "the size of the business of the person charged and the gravity of the violation" in determining the amount of the penalty. Moreover, as the Government seems to concede, the reasonableness and good faith of the manufacturer's noncompliance may properly be considered in mitigation of the statutory maximum.

Id. at 489 (citations omitted).

Since most of the affected cars are no longer in operation, the import of my disagreement with the majority has more to do with the doctrine we establish for governance of this type of case in the future than the result in the case of the 1959-1960 Cadillacs. The majority elevates facts which give rise to a strong suspicion of dangerousness into a conclusive presumption of the existence of a safety-related defect. I would allow the manufacturer the opportunity to dispel this justified apprehension by proof that failure due to the defect does not occur in a dangerous fashion and that the risk arising from the defect is therefore inconsequential.

APPENDIX B

UNITED STATES COURT OF APPEALS

For the District of Columbia Circuit

No. 75-1751

September Term, 1976

THE UNITED STATES OF AMERICA,
v. *Appellant*
GENERAL MOTORS CORPORATION,
a corporation

Civil Action
74-277

No. 75-1752

GENERAL MOTORS CORPORATION,
a Delaware Corporation
v.
BROCK ADAMS, et al.,
Appellants,

Civil Action
74-1053

APPEALS FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

BEFORE: WRIGHT, LEVENTHAL AND ROBB, *Circuit Judges.*

J U D G M E N T

These causes came on to be heard on the records on appeal from the United States District Court for the District of Columbia, and were argued by counsel. Upon consideration thereof, it is

ORDERED AND ADJUDGED by this Court that the judgment of the District Court appealed from herein is reversed; and these cases are remanded to the District Court for determination of appropriate relief, in accordance with the opinion of this Court filed herein this date.

United States Court
of Appeals
for the District of
Columbia Circuit
Filed June 28, 1977
GEORGE A. FISHER
Clerk

Per Curiam

For the Court:

GEORGE A. FISHER, *Clerk*

By: ROBERT A. BONNER
Robert A. Bonner,
Chief Deputy Clerk

Dated: June 28, 1977

Opinion per curiam.

Opinion dissenting in part by Circuit Judge Leventhal.

APPENDIX C

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 75-1751—September Term, 1976

THE UNITED STATES OF AMERICA,
Appellant

v.

GENERAL MOTORS CORPORATION,
a corporationCivil Action
74-277

And consolidated case No. 75-1752

Before: WRIGHT, LEVENTHAL and ROBB, *Circuit Judges*.

O R D E R

On consideration of the petition for rehearing filed by appellant General Motors corporation, it is

ORDERED by the Court that appellant's aforesaid petition is denied.

Per Curiam

For the Court:

GEORGE A. FISHER
George A. Fisher
Clerk

*Judge Leventhal would have granted appellee's petition for rehearing.

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 75-1751—September Term, 1976

THE UNITED STATES OF AMERICA,
Appellant

v.

GENERAL MOTORS CORPORATION,
a corporationCivil Action
74-277

And consolidated case No. 75-1752

Before: BAZELON, *Chief Judge*, WRIGHT, TAMM, LEVENTHAL, ROBINSON, MACKINNON, ROBB and WILKEY, *Circuit Judges*.

O R D E R

The suggestion for rehearing *en banc* filed by appellant General Motors corporation, having been transmitted to the full Court and no judge having requested a vote with respect thereto, it isORDERED, by the Court *en banc*, that appellant's aforesaid suggestion for rehearing *en banc* is denied.*Per Curiam*

For the Court:

GEORGE A. FISHER
George A. Fisher
Clerk

*Judge McGowan did not participate in this order.

APPENDIX D

THE UNITED STATES OF AMERICA,
Plaintiff,

v.

GENERAL MOTORS CORPORATION,
Defendant.

GENERAL MOTORS CORPORATION,
Plaintiff,

v.

CLAUDE S. BRINEGAR, as Secretary of
Transportation, *et al.*, *Defendants.*

Civ. A. Nos. 74-277 and 74-1053.

United States District Court,
District of Columbia.
Oct. 16, 1974.

Jeffrey Axelrad, Atty., Department of Justice, Washington D. C., for plaintiff United States of America.

James J. Robertson, Washington, D. C., for General Motors.

MEMORANDUM

GASCH, District Judge.

This matter is before the Court on cross-motions for summary judgment and oppositions thereto.¹

The action arises under Title I of the National Traffic and Motor Vehicle Safety Act of 1966, as amended (Act of September 9, 1966, 80 Stat. 718 et seq., 15 U.S.C. § 1381 et

¹The Court has granted leave for Stanton R. Koppel of the Center for Auto Safety, Washington, D. C., to file a memorandum as *amicus curiae*.

seq.) (hereinafter referred to as the Act). General Motors (hereinafter referred to as GM) is a corporation organized under the laws of Delaware and is a "manufacturer" within the meaning of Section 102(5) of the Act (15 U.S.C. § 1391(5)).

I. FACTUAL BACKGROUND.

During the period which encompassed model years 1959 through 1960, GM manufactured and sold approximately 284,456 Cadillac automobiles. GM estimates that approximately 43,400 are still in use.²

On September 13, 1972, some twelve years later, the Center for Auto Safety, Washington, D. C., forwarded to the Office of Defects Investigation, National Highway Traffic Safety Administration (hereinafter referred to as NHTSA)³ information alleging the existence of a safety-related defect in the design and performance of the steering pitman arm in the 1959-1960 model year Cadillacs.⁴ The pitman arm is a critical component of the steering system. It connects the steering shaft to the steering linkage. If it fails, directional control of the vehicle is lost.

NHTSA initiated an investigation of the pitman arm which included tests, interviews with a representative group of vehicle owners who had complained of failures, submissions from GM which disclosed an unusually large number of replacements of pitman arms, and a hearing conducted on November 6, 1973.⁵ As a result of this investigation, NHTSA, acting pursuant to Section 113(e) of the Act (15 U.S.C. § 1402(e))

²Affidavit of Alexander I. Pirie, Manager, Analysis, Product Assurance Department, Environmental Activities Staff, GM, August 2, 1974, ¶ 2.

³The director acts pursuant to the authority delegated to him by the Secretary of Transportation. 49 C.F.R. § 1.51.

⁴The term, "pitman arm," refers to the steering pitman arm on the 1959-1960 model year Cadillac unless otherwise stated.

⁵All of these items are contained in the extensive Administrative Record and its Supplement.

determined that a defect which relates to motor vehicle safety exists with respect to the steering pitman arm on 1959-1960 model year Cadillac automobiles, in that these pitman arms are subject to sudden and catastrophic failure, causing loss of steering control, and resulting in an unreasonable risk of accidents, deaths, and injuries to persons using the highways.⁶

By letter dated January 10, 1974, NHTSA directed GM to furnish the notification specified in Section 113(c) of the Act (15 U.S.C. § 1402(c)) to the purchasers of these automobiles.

On January 11, GM filed a suit in the U.S. District Court for the Eastern District of Michigan (G.M. v. Brinegar, et al., Civ.A. No. 4-70939) seeking a declaration that the agency determination was unlawful and void and an injunction resisting enforcement of the agency's order. GM obtained a temporary restraining order. On February 13, GM's motion for a preliminary injunction was denied and the temporary restraining order vacated by the Michigan Court. On that same day the United States (hereinafter referred to as US) filed a suit in this Court (U.S. v. G.M., Civ. A. No. 74-277) to enforce NHTSA's order under Section 110(a) of the Act (15 U.S.C. § 1399(a)).⁷ The Michigan action for declaratory relief and an injunction was transferred to this Court on July 8 (as Civ.A. No. 74-1053). GM has yet to furnish the notifications to purchasers as ordered by NHTSA.

II. SUMMARY JUDGMENT

(a) Defect.

On March 5 the US moved for summary judgment on the basis of the Administrative Record. This record contains

⁶Letter dated January 10, 1974, from James B. Gregory, Administrator, NHTSA, to E. M. Cole, President, GM, Administrative Record, Exhibit S-34, p. 2.

⁷Additionally the US seeks \$400,000 in civil penalties from GM pursuant to Section 109(a) (15 U.S.C. § 1398(a)) for failure to issue the safety defect notifications. The Court does not decide this at this time.

data supplied by GM⁸ which shows that roughly 9.3% (26,424) pitman arms were subject to replacement for the 1959-1960 model year Cadillacs. This compares with a 1.68% (4,519) replacement rate for the 1957-1958 model, and a 1.48% (4,423) replacement rate for the 1961-1962 model. The design of the pitman arm for the year in question differs from the previous year's design as well as that of the following year. GM is unable to provide a reason for the difference in replacement rates.⁹

The US contends that this unusually high replacement rate constitutes *prima facie* proof that the pitman arm contains a defect. The US bases this argument on the WHEELS case (United States v. G.M., D.C., 377 F. Supp. 242), decided by this Court on June 13, 1974, in which we held that a large number of failures of 15 x 5.50 Kelsey-Hayes disc wheels constitutes *prima facie* proof of the existence of a defect in performance under Section 102(11) of the Act (15 U.S.C. § 1391(11)). The US seeks to carry that decision one step further in this case.

As will become apparent, this case is clearly distinguishable from WHEELS. In WHEELS there was no controversy between the US and GM over whether there existed a large number of failures; in this case there is such a

⁸Administrative Record, Exhibit 2, Figure 11, September 26, 1972. Figures submitted June 20, 1974, in GM's August 5 memorandum of opposition to motion for summary judgment are slightly higher.

GM emphasizes that these figures reflect *sales* of pitman arms to dealers, not installations on automobiles. See Affidavit of Loren R. Papenguth, Assistant Chief Engineer for Cadillac Motor Car Division of GM, August 2, 1974, ¶ 7. The Court believes it is safe to assume that these parts were not purchased by dealers to sit on their shelves.

GM further suggests that pitman arm replacement may have occurred for reasons other than fatigue-induced failure: improper lubrication and maintenance, hard usage creating excessive ball stud wear, excessive loads due to improper torquing techniques, hoist damage, accident damage, and precautionary measures taken by dealers. The Court does not think these other reasons can by themselves account for such an unusually high replacement rate.

⁹Statement of L. R. Papenguth at the administrative hearing on November 13, 1973. Administrative Record, Exhibit S-24, pp. 37-38.

controversy. In WHEELS there was no dispute over whether such failure constituted an unreasonable risk of accidents, death or injury; that is the dispute in this case. In WHEELS the primary questions were the interpretation of the statutory words, "defect in performance" and what proof is necessary to show a defect in performance; in this case, which is a case of first impression, the primary questions are the interpretation of the statutory words, "unreasonable risk" and what proof is necessary to show that a defect poses an unreasonable risk of accidents, death or injury.

The Administrative Record also contains the results of tests conducted for NHTSA by the Essex Corporation of Alexandria, Virginia, a private testing corporation under contract to NHTSA. These tests confirmed information supplied by GM¹⁰ that the pitman arm can fail from metal fatigue after a large number of high stress maneuvers such as occur in parking and turning.¹¹ According to the US, either the report of the tests or the high replacement rate is sufficient to prove a defect in design or performance under Section 113(e)(2) of the Act (15 U.S.C. § 1402(e)(2)).

The Court does not reach the question of whether an unusually high replacement rate is *prima facie* proof under the Act of the existence of a defect. The test results are sufficient to indicate such a defect. Whether this is a defect which relates to motor vehicle safety is a more difficult question.

(b) Unreasonable Risk.

The Act is not concerned with all defects, but only with "a defect which relates to motor vehicle safety" (Section 113(e)(2), 15 U.S.C. § 1402(e)(2)). It defines "motor vehicle safety" in Section 102(1) (15 U.S.C. § 1391(1)) as

the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected

¹⁰Administrative Record, Exhibit 6.

¹¹Administrative Record, Exhibit 15.

against *unreasonable risk of accidents* occurring as a result of the design, construction or performance of motor vehicles and is also protected against *unreasonable risk of death or injury* to persons in the event accidents do occur . . . (Emphasis added.)

The US relies for summary judgment on the logical assumption that a defect involving the steering mechanism which leads to a loss of directional control creates an unreasonable risk of accidents, death or injury at any speed. It points to the fact that 10.7% of all fatal accidents occur at speeds of less than 20 miles per hour, and over 34.2% of all accidents resulting in injuries occur within this speed range.¹²

GM replies that fatigue-induced failure in the pitman arm constitutes no risk to safety because failure can occur only when the wheels are turned to or nearly to their extreme limits.¹³ This condition is reached only in parking or turning at very slow speeds, when loss of directional control can be checked by braking, or when the automobile is standing virtually still.

To substantiate this contention GM recounts its history of the 1959-1960 model year Cadillacs: 24 billion miles traveled; 144 reported incidents alleging pitman arm failure, only 19 of which included accidents, and none of which resulted in personal injury or death.¹⁴ If summary judgment is to be granted on the basis of the Administrative Record, argues GM, it should be granted in favor of GM's motion since the record demonstrates that pitman arm failure is not an unreasonable risk.

The US disputes GM's figures and alleges a larger number of pitman arm failures, including at least one occurrence at

¹²This data is taken from the 1972 edition of "Accident Facts" published by the National Safety Council, Chicago, Illinois, and is in the Administrative Record, p. 17.

¹³Papenguth Affidavit, ¶ 8.

¹⁴Papenguth Affidavit, ¶¶ 4, 5, 6. Mr. Papenguth maintains that in 17 of the 19 alleged accidents there is no evidence of pitman arm failure.

high speed.¹⁵ The figures of both sides are ambiguous, however, because they are based primarily on consumer complaints, many of which were submitted long after the alleged pitman arm failures. There was never opportunity for NHTSA to examine a defective pitman arm to determine whether it had failed from metal fatigue, and, if there was an accident associated with the alleged failure, whether pitman arm failure was its cause.

The figures may be ambiguous, but the law is clear that summary judgment can be granted only if "there is no genuine issue as to any material fact." Rule 56(c), Fed.R.Civ.P. The moving party has the burden of demonstrating the absence of any genuine issue of material fact. *Semaan v. Mumford*, 118 U.S.App.D.C. 282, 283, 335 F.2d 704, 705 (1964). The party opposing summary judgment "is entitled to the benefit of all favorable inferences that may reasonably be drawn from the evidence for the purpose of defeating summary judgment." *Semaan v. Mumford*, *supra*, quoting 6 Moore, Federal Practice 2114 (2d ed. 1953). To defeat a summary judgment motion, the opposing party need not prove that the factual inferences drawn by the moving party are actually incorrect; it is enough for the opposing party to show that contrary inferences "might be permissible." *United States v. Diebold, Inc.*, 369 U.S. 654, 655, 82 S.Ct. 993, 8 L.Ed.2d 176 (1962) (per curiam). These principles have been consistently followed by the United States Supreme Court¹⁶ and by the United States Court of Appeals for this Circuit.¹⁷ If material facts are found to be in

¹⁵Administrative Record, p. 7, and Exhibit 9, Zanfardino report.

¹⁶*United States v. Diebold, Inc.*, *supra*. *Adickes v. S. H. Kress & Co.*, 398 U.S. 144, 157, 90 S.Ct. 1598, 26 L.Ed.2d 142 (1970).

¹⁷*Rodway v. United States Dep't of Agriculture*, 157 U.S.App.D.C. 133, 138, 482 F.2d 722, 727 (1973); *Bloomgarden v. Coyer*, 156 U.S.App.D.C. 109, 114-115, 479 F.2d 201, 206-207 (1973); *Nyhus v. Travel Management Corp.*, 151 U.S.App.D.C. 269, 271, 466 F.2d 440, 442 (1973); *Washington v. Cameron*, 133 U.S.App.D.C. 391, 395-396, 411 F.2d 705, 709-710 (1969); *Underwater Storage, Inc. v. United States Rubber Co.*, 125 U.S.App.D.C. 297, 300, 371 F.2d 950, 953 (1966), cert. denied, 386 U.S. 911, 87 S.Ct. 859, 17 L.Ed.2d 784 (1967); *Semaan v. Mumford*, *supra*.

dispute a motion for summary judgment must be denied and a trial held.¹⁸

III. CONCLUSIONS

There is a certain appeal to the government's argument that a defect which may result in a loss of steering control is, *ipso facto*, a safety-related defect under the Act. One need only ask whether he would consider loss of steering control, even at a very slow speed, a reasonable or unreasonable risk.

The Act is more limited, however. Under its standard, a safety-related defect must pose, not just a risk of accidents, death or injury, but an *unreasonable* risk. The inclusion of the adjective "unreasonable," as well as the legislative history¹⁹ make the question of whether fatigue induced failure of the pitman arm creates such an unreasonable risk a matter of fact, not of supposition. The US says pitman arm failure can occur at high speeds but is an unreasonable risk at any speed; GM says pitman arm failure cannot occur at high speeds and does not pose an unreasonable risk at slow speeds. This is an issue of fact which cannot be resolved by logic alone. And it is an issue of material fact under the law of summary judgment. Therefore, the government's motion for summary judgment will be denied.

On this factual issue the automobile's road history is enlightening but not conclusive. For one thing, the history itself is a matter of dispute between the parties. Even more important, the Act looks less to the past than to the future. Its purpose is "to reduce traffic accidents and deaths and injuries to persons resulting from traffic accidents." (Section 1, 15 U.S.C. § 1381). It seeks to prevent accidents before they occur; that is the function of the statutory defect notification program. Whether fatigue-induced failure of the pitman arm creates an unreasonable risk depends upon,

¹⁸This is not a case of review of an administrative record.

¹⁹During the hearings on this bill before the Senate Committee on Commerce, Senator Ribicoff, testifying in support of the bill, raised the

among other things, whether failure can occur at high speeds. The Administrative Record, which looks retrospectively at GM's road history of this automobile, is insufficient to settle this dispute. Therefore, GM's motion for summary judgment will be denied.

question of how strict the standards to be promulgated by the Secretary [of Commerce] would be. This discussion followed:

Senator Pastore (a member of the Committee): Abe, I quite agree with you, and this requires more commonsense and it will not cost much more money. There is no question about that. But we are discussing here the technicalities and guidelines and formulas that we have to put in words to give guidance to the Secretary of Commerce so that he knows what his limits are, to promote this commonsense that we are talking about. And that is where I think we are going to have a tremendous amount of difficulty.

I think we are all agreed now, we are all agreed, that heretofore we haven't concentrated enough thought on this question of safety, and who is primarily responsible.

You are developing today the thesis that in the past the automobile industry could have done a whole lot more, and had they done it, we wouldn't be confronted with this legislation today.

Now we are giving this authority to the Secretary of Commerce. And we have to tell him, as a committee and as a Congress, how far he can go and how far he can't go. And that is where we are going to have trouble.

Senator Ribicoff: It is complex. In addition to the Secretary of Commerce, I think you can call upon the men who have been working in this field at Harvard, Cornell, and UCLA. And I think the automobile industry should be called in to explain the impact that standards will have on them and how this will work out. I think you should have testimony from the GSA.

Senator Magnuson (chairman of the Committee): GSA is going to testify tomorrow, and the automobile industry later.

May I say at this point, and it might throw a little light on this, section 101 of the bill says:

(He reads Section 101 of the Senate bill, S. 3005, which became Section 102(1) of the Act, 15 U.S.C. § 1391(1), quoted above, p. 118 of this Memorandum.)

The reason the word "unreasonable" was put in there is that there will be some commonsense applied to this, such as the Senator from Rhode Island (Pastore) has pointed out.

Hearings on S. 3005 Before the Senate Committee on Commerce, 89th Cong., 2d Sess., ser. 89-49, at 56 (1966).

Although this discussion related to promulgation of standards under Section 103 of the Act (15 U.S.C. § 1392), the Court finds that this "commonsense" approach is intended to be applied to the Act as a whole.

It is significant in this regard that Section 103(f)(3) requires reasonableness in prescribing standards: The Secretary shall consider, among other things,

whether any such proposed standard is reasonable, practicable and appropriate for the particular type of motor vehicle or item of motor vehicle equipment for which it is prescribed.

The General Counsel of the Commerce Department stated in a letter to the Senate Commerce Committee:

The tests of reasonableness of cost, feasibility and adequate lead time should be included among those factors which the Secretary could consider in making his total judgment.

The Committee Report to the Senate quotes this portion and says,

The committee intends that safety shall be the overriding consideration in the issuance of standards under this bill. The committee recognizes, as the Commerce Department letter indicates, that the Secretary will necessarily consider reasonableness of cost, feasibility and adequate lead time.

S. Rep. No. 1301, 89th Cong., 2d Sess. 6 (1966).

APPENDIX E

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	}	Civil Action No. 74-277
<i>Plaintiff,</i>		
v.		
GENERAL MOTORS CORPORATION,	}	Civil Action No. 74-1053
<i>Defendant.</i>		
UNITED STATES OF AMERICA, [sic]	}	Civil Action No. 74-1053
<i>Plaintiff,</i>		
v.		
CLAUDE S. BRINEGAR, ET AL.	}	
<i>Defendants.</i>		

MEMORANDUM

This action arises under Title I of the National Traffic and Motor Vehicle Act of 1966, as amended (the Act).¹ The United States (US) seeks to obtain an order in the nature of an injunction requiring General Motors (GM)² to notify the owners of 1959-1960 model year Cadillac automobiles that the vehicles contain a defect which relates to motor vehicle safety.

Specifically the US contends that these automobiles were manufactured with defective pitman arms³ which are subject to sudden failure, causing loss of steering control and

¹ Act of September 9, 1966, 80 Stat. 718 *et seq.*, 15 U.S.C. § 1381 *et seq.*

² GM is a corporation organized under the laws of Delaware and is a "manufacturer" within the meaning of Section 102(5) of the Act (15 U.S.C. § 1391(5)).

³ The function of the pitman arm is to transfer the angular motion of the steering gear to a lateral motion of the drag link and the tie rods causing the front wheels to turn. If it fails, directional control of the vehicle is lost.

resulting in an unreasonable risk of accidents, injuries or death. GM opposes the relief being sought by the US contending that the defect in these Cadillacs does not result in an *unreasonable* risk of accidents, injury or death, which is the statutory standard⁴ because failure occurs only in parking and other low speed maneuvers, when loss of directional control can be checked by braking.

This litigation was previously before the Court on cross-motions for summary judgment and oppositions thereto. By Memorandum and Order dated October 16, 1974,⁵ this Court found that no genuine issue existed as to whether these vehicles contain a defect, holding that a defect exists. But the Court also held that the question of whether the defect results in an *unreasonable* risk of accidents, injury or death within the meaning of the Act was a disputed issue of fact which must be tried *de novo*.⁶

By Order dated December 10, 1974, the Court set three issues to be tried:

(1) Does pitman arm failure at relatively low speeds such as those encountered in parking, driveway maneuvers, and other low speed maneuvers such as U-turns, create an unreasonable risk of accidents, injuries or death?

(2) Can a pitman arm failure occur at normal driving speeds or at high speed highway driving as a result of metal fatigue induced from or incident to parking and driveway maneuvers?

(3) If the answer to the question raised in the second issue is in the affirmative, does the normal speed or high speed possibility of pitman arm failure create an unreasonable risk of accidents, injury or death?

⁴ Section 102(1), 15 U.S.C. § 1391(1).

⁵ 65 F.R.D. 115. That Memorandum opinion contains the history of the administrative proceedings before the National Highway Traffic Safety Administration.

⁶ Counsel agree and Section 706(2)(F) of the Administrative Procedure Act makes it clear that *de novo* trial is required.

Trial *de novo* on these issues began February 3, 1975.⁷ In a civil trial *de novo* such as this, the plaintiff bears the burden of proving his case anew by a preponderance of the evidence. In this trial the US was the plaintiff.

In the course of the trial the US made out a slim *prima facie* case on the testimony of Mrs. Karen Arbuckle concerning a recent pitman arm failure in her 1960 Cadillac and the metallurgical and metal fatigue tests and testimony of Dr. Volker Weiss. GM countered with the risk analysis and fracture mechanics tests and testimony of Dr. Alan Tetelman.⁸ Since the government as plaintiff did not bear its burden of proof, the Court finds that the pitman arm defect in model year 1959-1960 Cadillacs does not create an unreasonable risk of accidents, injuries or death, and concludes that General Motors need not issue a defect notification to owners of these automobiles.

I. The Burden of Proof.

Since the outcome of this trial turns on the inability of the US to bear its burden of proof, it is important to be clear at the outset about the nature of an action to enforce a determination of the Secretary of Transportation that a defect related to motor vehicle safety exists about which a defect notification should be sent by the automobile manufacturer to owners.

⁷The trial lasted six and a half days and involved seven expert witnesses, 100 exhibits, and is reported in 1245 pages of transcript.

⁸The US presented other witnesses, but their testimony was relevant only if the US first showed that a fatigue-induced failure of the pitman arm could occur at normal or high speeds or that such failure created an unreasonable risk at low speeds. Since the Court is finding that the government failed to make this showing, the additional evidence is not helpful.

Likewise GM offered other witnesses in addition to Dr. Tetelman, but since the Court is finding that Dr. Tetelman's testimony is sufficient to counter the main elements of the government's case, it is unnecessary to consider their testimony.

This has been well set forth by the Chief Counsel of the Federal Highway Administration in a letter to Senator Warren Magnuson dated November 11, 1969:⁹

Under section 113 of the act (15 U.S.C. 1402), the Secretary cannot compel a manufacturer to send defect notification letters. . . . This is because Congress did not make the Secretary's orders self-executing. Thus, if a manufacturer disagrees with the Secretary's defect determination in a particular case, the Secretary can force the manufacturer to comply with the notification procedure only by asking the Attorney General to get a district court order directing such compliance. Section 110(a) of the act (15 U.S.C. 1399(a)) provides expressly for this procedure. . . .

In any such enforcement proceeding the manufacturer is of course free to challenge the validity of the Secretary's defect determination. Section 10 of the Administrative Procedure Act expressly provides (with an exception not relevant here) that "**** agency action is subject to judicial review in civil or criminal proceedings for judicial enforcement." 5 U.S.C. 703. Indeed, except where Congress has either precluded or provided some other forum for review—which is not the case under the Traffic Safety Act—that APA provision merely restates a long established tenet of administrative law. (Citations omitted)

Moreover, it is the Secretary, as the party moving for injunctive relief (i.e. an order directing compliance), who bears the burden of proving to the court that his defect determination is correct and he is entitled to enforcement. As the Supreme Court said in *United States v. W. T. Grant Co.*, 345 U.S. 629, 633, 73 S.Ct. 894, 898 (1953), and repeated in *United States v. Borden Co.*, 347 U.S. 514, 520, 74 S.Ct. 703, 707, 98 L.Ed. (1954), "[T]he moving party must satisfy the court that [injunctive] relief is needed." (Other citations omitted)

⁹S. Rep. No. 91-559, 91st Cong., 2d Sess. 41-45 (1969)

Moreover, the district court proceeding is a trial *de novo*, notwithstanding that under section 113(c) of the act (15 U.S.C. 1402(e)) the Secretary had already provided the manufacturer with all the information on which his defect determination was based and given the manufacturer opportunity to present its own views and evidence supporting them at an informal hearing. See, *Jordan v. American Eagle Fire Insurance Co.*, 169 F.2d 281 (D.C. Cir. 1948), holding judicial review of an administrative determination to be "*de novo*" where the act did not provide for a full dress administrative hearing. Indeed, *Jordan v. United Insurance Company of America*, 289 F.2d 778 (D.C. Cir. 1961), goes so far as to hold that an agency's gratuitous grant of a quasi-judicial hearing not required by statute could not deprive a party of his right to a hearing *de novo* before a judicial tribunal. See also 1 Davis, *Administrative Law Treatise* (1948 ed), section 7.10. And section 10(e) of the Administrative Procedure Act makes express that the court, in a trial *de novo*, may disregard administrative determinations where it finds them to be "unwarranted by the facts," 5 U.S.C. 706.

That statement accurately reflects this Court's understanding of the nature of this action.

However, confusion has arisen because the government's suit to compel GM to issue the defect notification has been consolidated with GM's suit challenging the determination of the Administrator of the National Highway Traffic Safety Administration (NHTSA).¹⁰ As a result, the US claims that the essence of this trial is a review of the reasonableness of the Administrator's determination in which GM is the plaintiff and bears the burden of going forward.¹¹

¹⁰*GM v. Brinegar* was transferred to this Court from the United States District Court for the Eastern District of Michigan. See *U. S. v. GM*, 65 F.R.D. at 117.

¹¹Plaintiff's Reply to General Motors' Legal Memoranda at 3-4.

Such a contention misconstrues the nature of this action. The Administrator of NHTSA initiated this controversy by determining that the pitman arm in 1959-1960 Cadillacs contains a safety-related defect and ordering GM to send out defect notifications to owners. When GM refused, the US brought suit to enforce the Administrator's determination.

Basic to the Administrator's determination was the assumption that a defect which may result in a loss of steering control is, *ipso facto*, a safety-related defect under the Act. This Court rejected that argument, saying that whether fatigue induced failure of a pitman arm in this automobile creates an unreasonable risk of accidents, injuries or death cannot be resolved by logic alone. The Court ordered a trial in which the government could prove that the Administrator's determination was correct and entitled to enforcement. GM's action against the government is secondary and responsive. If the government wants its determination enforced, it must bear the burden of proving by a preponderance of the evidence that the pitman arm in this automobile contains a safety-related defect, which is a defect which presents an unreasonable risk of accidents, injuries or death.

II. The Evidence Presented at Trial

The trial was largely a battle of experts. Experts on both sides agreed that the original pitman arm on 1959-1960 Cadillacs¹² is defective in that it is subject to fatigue-induced separation (breaking) in the necked down portion adjacent to the ball-stud end.

They further agreed that the fatigue process begins with a crack which propagates as repeated cycles of alternating loads are imposed on the arm. The greater the magnitude of the load applied, the more rapidly the crack will grow. Conversely, the smaller the magnitude of the load, the less rapidly the crack will grow. Again, the larger the crack in

¹²During model year 1960 the pitman arm was strengthened so that it was no longer subject to fatigue failure.

the arm, the more it will grow with the application of a given load. Conversely, the smaller the fatigue crack, the less it will grow with the application of that load.

They agreed that fatigue induced separation occurs if a fatigue crack becomes large enough so that the remaining material—the intact cross section—has become so small that it can no longer support the applied load.

The parties' experts also agreed that different maneuvers impose different loads on a pitman arm. For example, normal parking or U-turns at slow speeds exert over two thousand pounds of stress, whereas lane changes, S-turns, slow pothole impacts and 90-degree turns impose less than one thousand pounds of stress.

The parties differed as to how small the intact cross section can become before it will break. If the crack can become very long, so that the remaining intact cross section is very small, then a small load—as is encountered, for example, in a lane change at 70 m.p.h.—might be enough to cause separation. If, however, the crack cannot become very long, because heavier loads—such as normal parking maneuvers—will break it before it has a chance to get too long, then little hazard exists: the failure will occur in a parking maneuver long before it might occur in a high speed lane change.

Dr. Volker Weiss, the government's expert in metallurgy, expressed the opinion, based on his own knowledge and the examination of broken pitman arms, that a fatigue crack could propagate far enough so that remaining cross-section could become quite small. His tests indicated that such a small intact cross section could break under the load stress of normal driving maneuvers such as a fast lane change at 70 m.p.h., a 40 m.p.h. cornering maneuver, a 30 m.p.h. moderate S-turn, a 10 m.p.h. ninety degree turn, or a five m.p.h. U-turn.

GM countered Dr. Weiss' conclusions with the expert opinion of Dr. Alan Tetelman¹³ to the effect that the experiments conducted by Dr. Weiss on pitman arm separation did not accurately reflect the "real life" situation. Specifically Dr. Tetelman noted that Dr. Weiss had notched long circular cracks in the pitman arms before testing their load capacity. These long machine-induced cracks were unlike fatigue-induced cracks in two ways. First, the cutting was so clean that no interlocking metal remained, as would be the case in fatigue-induced crack propagation. Second, the machine-induced crack was longer and was circular, leaving a smaller and materially different cross-section intact, than occurs in real-life situations.

Dr. Tetelman's experiments traced the propagation of a fatigue-induced crack to separation. These experiments demonstrated that separation would occur under heavy loads such as parking and low speed maneuvers when the fatigue-induced crack had propagated through only about fifty per cent of the cross section, so that, in effect, the crack in real-life driving would seldom become so long that the pitman arm might break under the lighter loads experienced in normal or high speed driving maneuvers.

The allegation that Dr. Weiss' experiments were not "true to life" was never rebutted by the government. Thus the "battle of the experts" was a stand-off. The government did not show by a preponderance of the evidence that a fatigue crack would normally propagate so far that the remaining cross-section could break under normal or high speed maneuvers.

The US also offered the experience evidence of Mrs. Karen Arbuckle of Des Moines, Iowa. Mrs. Arbuckle testified that on November 7, 1974, the steering on her 1960 Cadillac failed without warning as she was making a right hand turn, and her vehicle proceeded diagonally into the

¹³Other GM witnesses, such as Dr. Kenneth F. Packer, offered testimony similar to Dr. Tetelman's.

curb on the opposite side of the street into which she was turning. Fortunately the oncoming traffic lane was empty so there was no collision. An examination of the steering system revealed a separation of the pitman arm resulting from fatigue-induced failure. Mrs. Arbuckle estimated that she was traveling between ten and fifteen miles per hour at the time she experienced loss of directional control.

Mrs. Arbuckle's experience demonstrated that whether or not separation normally occurs in such ordinary driving maneuvers as making a right turn, it did occur in this situation, raising experientially, rather than scientifically (as when done by the metallurgy experts), the question of whether pitman arm failures constitutes an unreasonable risk to safety.¹⁴

GM countered the experience of Mrs. Arbuckle with the risk analysis of Dr. Tetelman. Risk analysis is based upon the premise, recognized by engineers, that no event has zero probability and no product can be perfectly safe. Arbuckle-type experiences are bound to occur. Risk analysis attempts to put these experiences in perspective, however, by quantifying the safety record of an item (in this case, the pitman arm on 1959-1960 Cadillacs) so that it may be compared with other items, thereby determining whether it presents an unreasonable risk to safety.

In the case of these Cadillacs, there is no documented injury or death resulting from pitman arm failure, as NHTSA has admitted. Furthermore there are few documented accidents. The cars are now fifteen years old. 96% of their life had been completed by the end of 1973. At the start of 1975 there were approximately 33,000 still in service. And the vehicles have travelled, in the aggregate, approximately 24 billion miles. On the basis of this extensive

¹⁴Testimony of another pitman arm failure was offered by the deposition of Joseph Dalkiewicz of Plymouth, Pennsylvania. However, the diagram of the direction taken by the Dalkiewicz vehicle after the pitman arm failure was contrary to the evidence of Dr. Weiss, thus weakening the force and effect of the evidence.

past experience, Dr. Tetelman projected a negligible risk of accidents, injuries or death due to pitman arm failure in the extremely limited future that remains for these automobiles.¹⁵

He noted that there is little likelihood of a rash of pitman arm failures in the remaining four per cent of the life of these vehicles because the mean (average) fatigue life of the pitman arm is calculated to be approximately 48 years, whereas the significant life remaining in these Cadillacs is only six years.

Therefore the government's demonstration that the Arbuckle-type experience has happened did not prove that it would happen sufficiently often to create an unreasonable risk to safety. On the contrary, GM offered Dr. Tetelman's risk analysis as evidence that it will not.

III. Finding of Fact.

The government failed to demonstrate that a defect which creates an unreasonable risk of accidents, injury or death exists in the pitman arms of model year 1959-1960 Cadillacs.

IV. Conclusions of Law.

1. The United States, as plaintiff, failed to bear its burden of showing by a preponderance of the evidence that fatigue-induced failure of the pitman arm in 1959-1960 model year Cadillacs creates an *unreasonable* risk of accidents, injuries, or deaths.

2. Therefore this defect in the pitman arm in 1959-1960 model year Cadillacs is not a "defect which relates to motor vehicle safety" under Section 113(c)(2) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. § 1402(e)(2)).

¹⁵Dr. Tetelman used other data as well, but the Court relies on that portion of his analysis which is based on the life history of these automobiles.

3. The Order of the Administrator of the National Highway Traffic Safety Administration of January 10, 1974 ordering General Motors to furnish the defect notification specified in Section 113(e) to owners of the Cadillacs involved as provided in Section 113(a) and (b) is set aside.

OLIVER GASCH
Judge

April 25, 1975

Date